QUARTERLY

THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION

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EDITORS' MESSAGE

A year ago Betty and I became co-editors of The AEHA Quarterly. At that time we asked, begged and pleaded for your feedback and input. Our goal was that the Quarterly be a product of an interactive relationship between AEHA members and ourselves as editors. As such, we wanted The Quarterly to reflect the national membership and information needs.

Well... all you members out there, YOU' VE DONE IT!

A special thank you to all of you who called or wrote to us with questions, concerns or feedback. The response was tremendous. Thank you M. MacLean for your updates to our Professional Listings page and to P. Briggs for your unsolved questions and answers.

Thank you members for participating - we love it! The association is only as good as those who use it - or something like that. It goes without saying that we expect this interactive relationship to continue into 1994... and more. Here's to a great Quarterly, great members and great feedback, feedback, feedback.

Betty Auslander
Marianne Bertrand

THE QUARTERLY

CO-EDITORS
Betty Auslander
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The AEHA Quarterly publishes scientific and person material reflecting the needs and interests of people with environmentaly related illnesses. The Quarterly does not offer medical advice. People wishing to experiment with changes in their lifestyle should consult a physician.

Letters to the editor and submission of material for The AEHA Quarterly should be sent to:

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Membership in The AEHA includes a subscription to The AEHA Quarterly. The annual membership and subscription fee is $25.00. Subscription requests and changes of address should be sent to:

The AEHA
P.O. Box 40604
Burlington, Ont., L7P 4W1

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ISSN No. 0849-3138

Publications Mail Registration No. 6964.

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The Allergy and Environmantal Health Association of Canada is a non profit, registered charity.

The association's mandate is to increase awareness of environmentally related illnesses, stressing recognition, prevention, and treatment, and to advocate for fair and equitable treatment of affected persons.

The AEHA has branches across Canada.

ENVIRONMENTAL SENSITIVITIES

A growing segment of the population experience a variety of adverse reactions to environmental agents at levels well below those that might be deemed to affect average persons. This atypical reactivity is called Environmental Sensitivity.

Subsections of Environmental Sensitivity include labels descriptive of the site of the reaction such as "Asthma" (lungs) or of the mechanism of the reaction such as "Allergy", or of the causative agents such as "Multiple Chemical Sensitivity" or "Electromagnetic Sensitivity".

Typical agents include food, water, airborne substances, electromagnetic fields, and materials typically encountered in our daily lives, including both physiological and psychological stressors.

Sensitivity is highly individualistic, affecting each individual in a unique way, making definition, diagnosis and treatment difficult. Severe sensitivity is called "Hypersensitivity" and in some extreme instances, where a person has a sudden attack called "Anaphylaxis", the condition can be fatal. Symptoms may be mild and merely annoying, or they can be severe enough to interfere with daily activities, family life and career.

Environmental sensitivity is a degenerative illness. Prevention, early detection and treatment are therefore of paramount importance in dealing with this illness. Treatment of Environmental Sensitivity focuses on prevention, prudent avoidance of offending agents, appropriate nutrition, counselling and medical intervention.

Environmental Sensitivity is a relatively new field and as such is subject to considerable variation in interpretation. Environmental Sensitivities have been officially acknowledged as legitimate and compensatable disorders by many governments, agencies and research establishments.

MEMBER PROFILE

CECLI O'GRADY: WHO NEVER GAVE UP

Cecli lives and teaches in Newmarket. Eventually, she would like to form a support group or AEHA branch there.

Cecli now knows that she has severe reactions to phenol and has a candida condition which she manages with a rotary diversified diet. She is extremely thankful for the support of her husband, his seven year old and her parents in the period where she was struggling to regain her good health.

It was in February 1990 that Cecli first began to experience severe pains in her right side. In an effort to identify her problem, her regular doctor subjected her to many tests over the period of a year. During that year, Cecli was vaguely aware that the new paint smell at school was bothering her. When a new floor was put in the gym, she experienced slurred speech. In February 1991, she was rushed over to the doctor's office with pain and nausea. By January 1992, she was visiting her doctor or a specialist every third day.

One doctor did find that her white blood cell count was higher than normal and told her this was usually associated with Hodgkin's, parasites or severe allergic reactions (and this latter seemed very unlikely to her doctor.)

She was advised to have a minor intestinal operation. She did so. They found that her intestines were swollen and wrapped around her ovaries causing her severe pain. They also found an unusual amount of scaring inside her intestines. During her three month recuperation period and the ensuing summer holidays, she felt fine.

In the fall, she went to teach at another school where they proceeded to paint, put down a new carpet, removed asbestos and PCB's. By October 1992, she was experiencing pain in her side again and from October through December 1992, she was treated for 4 cases of strep throat. In January 1993, a young doctor at a local clinic, suggested that the strep throat and white blood cell count might be the result of an allergic reaction.

Cecli then went to an M.D. who specialized in allergies and food sensitivities. She found that she was allergic to 41 foods, formaldehyde and phenol.

After these were identified, Cecli went on a 10 day diet where she only ate foods she had never before eaten (e.g., duck, dandelion, kale, turnip). By the fifth day, she was experiencing withdrawal symptoms and was extremely impatient and irritable. She wanted to scream and hit but she stuck with the diet.

Then she started introducing a new item every day and would monitor her reactions. She recorded her reactions on a chart similar to the attached. She noted how she felt before and after each meal - her mood, her skin, her digestive system common food reactions including hyperactivity, feeling out of control, irritability; hives, bloating, nausea, a dry sore throat.

She learned that endive, beans, peas, corn and beef made her violently sick. Within 15 minutes after eating any of these she would throw up and the sickness would last 1-1/2 days.

She developed hives on her neck after eating cheese. The day after she ate sugar, she would be very irritable and pick fights with her husband. Five days after eating a cucumber, she would get nausea.

The hardest reaction to identify was yogurt. If she ate it every 8 days, it bothered her. If she ate it every 14 days, she had no pain. In the end, she decided to eliminate yogurt completely.

To plan her rotary diet, Cecli used Sally Rockwell's Allergy Recipes and colour coordinated chart.

After she was on the rotary diet for 3 weeks, Cecli's skin improved. Within 2 months, her yeast infections disappeared; her periods began to be regular; her PMS symptoms disappeared; her headaches and eczema disappeared. Her former calm, easy going personality resurfaced.

Most of the time, Cecli now feels fantastic... except when she is exposed to phenol or anything with a smell - photocopy machine, chlorine from tap water, perfume, nail polish remover, markers, new vinyl flooring, paint, bounce. She starts shaking or faints when she is exposed to such products and this happens about once a week.

The other teachers have been supportive and no longer wear hair spray or perfume to school.

Books have been an important source of information for Cecli. Some of the most important include:

- The Alternative Health Services Directory
- A. Berthold-Bond. Clean and Green
- W. Crook. The Yeast Connection
- D. L. Dadd. Nontoxic, Natural and Earthwise
- T. Randolph & R. Moss. An Alternative Approach to Allergies
- Sally Rockwell. Allergy Recipes. Coping with Candida Cookbook
- If This Is Tuesday It Must Be Chicken
- J. P. Trowbridge & M. Walker. The Yeast Syndrome

Betty Auslander

BARE BASICS DIARY

(MASTER - make copies for daily use)

Date:	Food	Medications Supplements Vitamins	Weather	Indoor/ Outdoor Pollution	Activities	Misc.	Symptoms
Morning 6 am - 12 pm							
Afternoon 12 pm - 6 pm							
Evening 6 pm - 12 am							
Night 12 am - 6 am							

- A Diet/Activity/Environment/Symptom Diary is one of the most valuable tools to help you understand what is causing your particular symptoms.
- Reactions are not always immediate. Symptoms from food sensitivities can take up to 72 hours to manifest themselves and go away. Come and go symptoms can be most easily detected by a diary. Constant symptoms would relate to what is eaten, breathed or touched frequently or everyday.
- Record all symptoms, even such as ringing ears; cold hands and feet; back or joint pain; blurred vision; memory loss; being confused: fearful, or irritable; as well as the more common symptoms such as headaches, itching and vomiting. Women record their menstrual cycles. The weather can be important. For example, the mold count is very high just before a rain.

MEDICAL UPDATE

IDENTIFYING & AVOIDING CHEMICAL EXPOSURES THAT TRIGGER ILLNESS REACTIONS

Multiple chemical sensitivity (MCS) is defined as illness reactions associated with exposure to more than one chemical, at significantly lower exposure levels than would cause noticeable illness in the general population, not mediated solely by known immune mechanisms, often accompanied by unusual fatigue, involving symptoms in multiple organ systems, and usually including symptoms of the central nervous system.

Chemical exposures can be divided into two groups: external exposures in the patient's environment and internal exposures resulting from body burdens of various chemicals from the environment. The chemicals that lend to exacerbate or induce illness symptoms in patients with MCS, in my experience, have typically been pesticides, other petrochemicals, coal-derived chemicals, and combustion products. Chlorinated water containing organic debris can also induce illness reactions in these patients, possibly because organochlorines are formed in this situation. Heated surfaces containing a chemical residues that volatilize with heating can also be problematic, e.g., electrical and electronic equipment.

The specific exposures that trigger symptoms vary from patient to patient. To identify problem exposures for a specific patient, a patient log of illness reactions is useful. The patient records the date of each illness reaction (symptom onset or, for chronically ill patients significant worsening of symptoms). The accompanying symptoms are then listed, beginning with the most troublesome, e.g., most uncomfortable, most disabling in terms of ability to function normally. For each reaction, the chemical exposures are recorded for a period of hours prior to the reaction. A four-hour period before illness will probably catch most inhalation exposures, although some patients may have a significantly longer delay of symptoms onset perhaps 12-24 hours or even more. Ingestion exposures, such as foods containing pesticide residues, seem to have more delayed onset intervals than do inhalation exposures. Irritative symptoms may also be reported with low-level exposure and can occur within minutes. The latter are often accompanied by some systemic symptoms in chemically sensitive patients.

Symptoms the physician should look for in the patient log include unusual fatigue, difficulty thinking, impaired concentration, and short-term memory losses. The patient may use terms such as feeling spacey, but the doctor can inquire for more specifity. Headaches (e.g., in the sinus areas and sinusitis) may also occur, especially with pesticide and petrochemical exposures and not infrequently with irritants. Other symptoms may involve the upper or lower joints, or connective tissue areas is not unusual. Symptoms can also involve internal organs including gastrointestinal, genitourinary, and cardiac symptoms (e.g., palpitations, irregular heart beat). Unusual thirst is not uncommon.

For children with suspected chemical sensitivity, the physician should be alert that hyperactivity, attention deficit, and behavioral changes commonly follow chemical exposure; hyperactivity is much less common in chemically sensitive adults. The parent will need to inquire about exposures and maintain the log for younger children. A comparison of handwriting samples obtained during illness reactions and when the child feels well can be useful.

The physician should review the illness log during the patient visit for the type, duration, severity of exposures that precede illness reactions. These exposures should be given serious attention for control measures,particularly when repeated patterns are observed, or reactions are accompanied by symptoms that interfere with the person's ability to function normally on the job, at school, or at home. Patients may not be aware of all their exposures. They should be encouraged to ask about possible exposures whenever they become ill outside the home when new products have been brought into or used in the home, or when they have been around someone who may be using or wearing one or more products containing petrochemicals or coal-tar derivatives. Patients should include in their log any use of medications or beverages containing alcohol and the presence of smoke or other combustion products as exposures, because these can trigger or aggravate illness reactions.

Determining the exposures that trigger illness reactions can require some detective work by the physician. I repeatedly found that when clinical improvement did not occur, some exposure had not been identified. When the exposure was finally identified and controlled, significant improvement occurred in almost every clinical case involving my patients to date. The physician must be willing to evaluate carefully any exposures that may have been overlooked in patients who are not making clinical progress. More severely affected individuals are likely to improve more slowly, however.

AVOIDING QUESTIONABLE CHEMICAL EXPOSURES

Patients with MCS typically improve, albeit gradually over months or years, with adequate control of their chemical exposures. The focus should be on eliminating all unnecessary exposures to pesticides, petroleum and coal-derived chemicals, and combustion products. Combustion products from natural substances, such as wood and leaves, may also be a problem. Tobacco smoke represents combustion products from such things as tobacco leaves, additives, and pesticides.

Control efforts must include chemical exposures in the home, where most of the hours of exposure typically occur, and in the workplace, where exposures may be more intense. For chemically sensitive children and other students, the school environment must be controlled. Unfortunately, school classrooms and cafeterias still commonly have frequent and routine petrochemical pesticide applications regardless of the presence of pests. Community sources of exposures can also be a problem, e.g., gas stations; dry cleaning stores; landfills containing hazardous waste; industrial air or water emission sources; area of heavy traffic; or nearby neighbours or commercial facilities using petrochemical pesticides for lawn, agricultural, or grounds treatment.

Patients who drink beverages containing alcohol would probably benefit from a trial period of complete avoidance for a month or longer. Then, if they wish to test their response to alcohol, they could have a single drink on a day without other known exposures. This may need to be repeated several times if the patient wishes to avoid unnecessary abstinence. Unusual fatigue within a day after the single drink or other symptoms unexpected from a single drink, such as significantly impaired thinking beyond what the patient would have experienced prior to the onset of chemical sensitivity, represents a probable positive reaction. Chemically sensitive patients often voluntarily reduce or eliminate their alcohol consumption because of symptoms, even before medical advice. Although ethanol is derived from grains or other foods, it is structurally related to petrochemicals. Some physicians believe that the grain or other food stuffs from which the alcohol is derived may be a factor if the patient has also developed increased sensitivity to specific foods.

Avoidance trials are helpful in evaluating whether a particular exposure aggravates illness in a particular patient. The exposure should be avoided for a minimum of two weeks (four weeks are more ideal) because individual illness reactions can persist for one to two weeks after removing the immediate offending agent, and increased fatigue is often the last symptom to clear. Additional time is needed for the patient to establish a baseline for comparison before and after the trial exposure.

Control of chemical exposures can be achieved most easily in the home, where the environment is more under the patient's control. Household exposure must be controlled for recovery because many patients spend 10-20 hours there daily. The chemically sensitive patient should list home-use products that may contain petroleum or coal-derived chemicals (and irritants like laurel sulphate compounds, bleaching, and other cleaning agents, for patients also sensitive to irritants). The list should include brand names and manufacturers of products the patient wishes to continue using if they do not contain petrochemicals, coal-derived products, or irritants (e.g., cleaning agents, cosmetics and personal hygiene products [all the patient's personal use products and all aerosols used by family members], all pesticides, odorants and odour-masking agents [air fresheners], and other house, garden and garage and vehicle-maintenance supplies). The patient can then inquire from the Poison Control Centre whether these products contain any petrochemicals, coal-derived substances, or irritants. If necessary, persons other than the patient can use vehicle-maintenance supplies containing petrochemicals if they are stored in a non-attached garage or shed and are not used on the vehicle interior. Use of petrochemicals that can enter the vehicle's interior should be limited whenever possible and avoided for several days before the patient will use the vehicle.

Petrochemicals typically evaporate, the volatile rapidly and the non-volatile more slowly. Thus, on going exposure from residues can occur for days, weeks, months, or even longer, until evaporation is complete and the residue gone. For example, chlordane residues persist in concentrations adequately effective against termites for 20 or more years; chemically sensitive patients may have difficulty with chlordane exposure even beyond this time. Thus, merely avoiding a room during or shortly after chemical use there does not avoid exposure and is insufficient to protect the chemically sensitive.

Most chemically sensitive patients seem to be adversely affected by petrochemical pesticides. Home and garden pets can usually be controlled adequately without the use of petrochemicals. Integrated pest management and non-petrochemical pest-control alternatives are available for virtually every pest-control problem in commercial agriculture as well. It is necessary to eliminate petrochemical pesticide use from the patient's home, lawn, play areas, and other areas where any skin contact could occur or where vapour exposure occurs more than occasionally. Thus, pesticide alternatives are needed in the school and workplace. Pesticides in the diet should also be reduced or eliminated. Because the pesticide residue legally allowed on foods can be too high for chemically sensitive patients, foods grown without pesticides (often called "organic") are preferable. Thus, whenever possible, the physician should recommend such organic foods, particularly for patients who are sufficiently ill that their symptoms significantly interfere with work, school, and other activities needed for daily living. Animal fats, such as meats, dairy products containing fat, and shortening, can contain higher residue of fat-soluble petrochemicals, and their intake should be reduced whenever possible.

The use of petroleum or coal fuels for cooking (gas stoves), clothes drying, heating (oil, gas or coal) and other purposes can cause illness in chemically sensitive patients. If any question exists about symptoms associated with cooking fuels, the patient should try using a hot plate and other electric appliances for cooking for several weeks, followed by a brief trial using gas to cook a meal, and should record any change in symptoms. Multiple agents can induce an illness reaction, and reactions can be missed in people with chronic illness or other exposures. Therefore, only when persons who are not chronically ill lack any detected reactions after multiple trials can be relative safety of gas cooking be suggested. Similar trials can be done for heating fuels by temporarily substituting electric space heaters (without coils that contain petrochemicals). In general, severely sensitive individuals show more symptoms with petroleum or coal-based fuels, and these persons may not recover adequately if the exposures are neglected.

Cosmetics and other personal-use products containing petroleum and coal-derived substances can also be a problem. Such substances applied to the skin often enter the body readily. Aerosols and substances that evaporate rapidly (hair spray, nail polish remover) can cause exposure when used by family members or others. Volatile substances on the skin or clothing of family members, friends, coworkers, or others can be a problem, especially for more sensitive patients. Many colognes and perfume agents are petrochemicals, and these can persist for hours at sufficient levels to cause illness reactions, especially in more sensitive patients. Fortunately, safer substitutes are available for many cosmetics. Some patients are sensitive to products containing lanolin from sheep treated with pesticides, because the pesticides are often fat-soluble and enter the lanolin readily.

As mentioned above, chlorinated water often contains chlorinated solvents, and exposure can result in increased body levels of chlorinated hydrocarbons. This often presents a problem for chemically sensitive patients who use chlorinated pools. Natural, non-chlorinated water is best for chemically sensitive patients who swim. Showering (and bathing) also causes exposures, which can be particularly problematic for more sensitive patients. Exposure will be directly proportional to the rate of flow, water temperature, and shower duration. Thus, long showers with high flow create much higher exposures than do short ones with reduced flow. Exposure can be reduced further by using an activated charcoal filter attached to the shower head or bath faucet. Water for drinking and cooking may also be a problem. Activated charcoal or reverse-osmosis-filtered water can minimize this exposure. Bottled spring water is likely to have lower petrochemical content than does most tap water, but the actual chemical content will vary depending on spring contamination. Water in plastic containers may have some contamination released from the container material, and this could be a problem for some patients.

Certain fabrics can pose a problem for chemically sensitive patients because of offgassing into the air, skin contact, and the ease with which petrochemicals enter the body through the skin. Fabrics with permanent-press treatment can contain formaldehyde or other petrochemical residues that bother many sensitive patients. These fabrics may present a problem during shopping in department stores and after purchase, until repeated washing reduces the levels of formaldehyde or other chemicals. Recently dry-cleaning garments often contain residues of perchlorethylene or other solvents at levels that may aggravate illness in sensitive patients. Although many sensitive patients prefer to avoid dry cleaning, recently dry-cleaned garments can be aired outside the home (not in a plastic bag) for several weeks and may then present less of a problem. Patients who are also bothered by irritants may find that residues of certain fabric softeners and some detergents on clothing and bedding are a problem. Less irritating substances are available as substitutes for home laundry in these cases. Some patients have difficulty with certain synthetic garments made from various petrochemicals. After repeated washings, symptoms may be reduced.

Some wools may be a problem, both because pesticides were used on the sheep and because wool may have mothproofing treatment.

Chemically sensitive patients often develop symptoms from exposure to vehicle exhaust. This problem is more likely in heavy traffic, on freeways, in tunnels, and behind buses and trucks. The patient should not drive in such situations if reactions to these exposures include significant central nervous system symptoms, especially if symptoms come on fairly rapidly or without significant warning. Patients can often reduce such symptoms significantly by installing a charcoal filter device to treat air that comes into their vehicles; such devices can plug into the vehicle's cigarette lighter. Choosing less-congested routes and commuting schedules and avoiding tunnels is also helpful. Some patients may need personal, charcoal-filtered respirators for adequate symptom control while driving, but other controls usually suffice. If other frequent and intense chemical exposures are rigorously controlled, the illness eventually improves sufficiently for most patients so that respirator use is seldom needed indefinitely. It may still be needed on occasion, such as on long drives and in unavoidable congested areas.

Stickers for handicapped parking areas can help patients who experience illness with vehicle exhaust, particularly if they frequently park in large lots or garages and walk through exposed areas. Despite the above controls, some patients may have times in their illness when they are too ill to drive safely. This can improve significantly or eventually resolve in most cases when other exposures are controlled.

Gasoline (or other fossil fuel) vapours can cause illness reactions in chemically sensitive patients. These patients should probably ask someone else to fill their tanks, particularly if they have noticed adverse reactions after being at service stations. Such patients should avoid gasoline service stations whenever possible. In practice, vapour-recovery devices do not often form adequate seals with the gas tank during filling, and exposure still occurs.

If certain plastics in the home (or elsewhere) offgas, they may be a problem. More sensitive patients are likely to be troubled by plastics, but any frequently or chronically ill patient should probably minimize such exposure. For example, microwaving with plastics and plastic wraps can cause offgassing and potential food contamination; glass is preferred. Plastic covers on pillows or mattresses can cause hours of daily offgassing close to the patient's breathing zone. Plastic shower curtains may also be a problem, especially in small rooms. Plastic offgassing in new vehicles is a common problem. In general, flexible plastics offgas more often than rigid ones, and new ones more often than old ones. Water is likely to be less contaminated when bottled in glass than in plastic containers, other factors being equal. While perhaps not a problem for most sensitive patients, some have reported repeated illness after using Teflon cookware.

Chemically sensitive patients are often more sensitive to medications as well as chemicals. They seem more prone to unusual fatigue, other side effects, and perhaps more serious adverse reactions. They also seem more likely to develop significant illness reactions to dyes and other chemicals injected for diagnostic purposes. Thus, for pharmaceutical agents used for therapy or diagnosis, the physician will need to be unusually cautious or conservative to weigh very carefully the expected benefit against increased risk of illness reactions. Non-pharmaceutical Alternatives should be considered whenever possible, such as acupuncture for analgesia and anesthesia rather than novocaine-related agents and petroleum-derived anesthetics. Unfortunately, physicians may have difficulty selecting alternatives because medical education in many countries tends to ignore non-pharmaceutical remedies. When pharmaceuticals are required, beginning with lower dosages is strongly recommended whenever possible. Misdiagnosis can also lead to unnecessary medication. A common example is misinterpreting the very common sinus irritation seen in chemically sensitive patients as infection. The physician prescribes one antibiotic after another with no clinical improvement, but with increasing medication side effects.

Grace Ziem, M.D., Dr. PH
Occupational & Environmental Research Office, Baltimore, Maryland

Exerted from a paper originally printed in Toxicology and Industrial Health, Vol 8 #4, 1992

THE OFFICE OF ALTERNATIVE MEDICINE

The U.S.A. Government has established the Office of Alternative Medicine, devoted solely to studying alternative healing methods, including homeopathy, acupuncture and chiropractic care. The Office, part of the National Institute of Health has $2 million authorized by Congress for the program's first year. Joseph J. Jacobs, the Office's Director, as a child was given herbal remedies by his Mohawk mother. He also spent time as a physician on a Navajo reservation where alternative healing methods were a way of life. Jacobs, who has establishment credentials including a medical degree from Yale University, insists that his office will encourage "rigorous scientific testing", and says "I bring a fair amount of scepticism to this job." Grants supported by his office will go through normal NIH procedures.

Options on the Office Alternative Medicine are diverse. Some in the alternative health care field hope their findings will not only legitimize unconventional methods but also expose those that aren't as well. Opponents complain that the Office will just divert resources from research that is more likely to yield benefits. For the most part the medical establishment has adopted an attitude of bemused indifference. The American Medical Association takes the view that although most alternative therapies are never proved and some are fraudulent, they should be evaluated.

A recent study in the New England Journal of Medicine indicated that 60 million Americans turned to various alternative therapies last year, spending more than $14 million.

Scientific American, September 1993, and Omni, October 1993

Reprinted with permission from Positive Reaction (September, 1993), Box 1250, Station K, Toronto M4P 3E4.

RECENT RESEARCH

CHEMICALS AND REPRODUCTIVE HEALTH

The American Journal of Industrial Medicine (Vol. 21, No. 1) reported higher-than-expected rates of birth defects in children of mothers who were exposed to chemicals before pregnancy and who were exposed to pesticides during the first trimester of pregnancy.

- Leslie Hilleary, Indoor Air Review, April, 1992

CHEMICALS AND NEUROLOGICAL HEALTH

According to the National Research Council's Committee on Neurotoxicity and Risk Assessment,"toxic chemicals are found not only in the air and water, but in many household products, such as glue, paint, cosmetics, etc." "Some 70,000 chemicals are used in commerce, of which several hundred are known... neuro-toxicants," according to the NRC report. "The committee noted the problem in quantifying neurotoxic illnesses, as it is not known how long-term exposure to low doses of chemicals can affect the nervous system."

- Leslie Hilleary, Indoor Air Review, April, 1992

CHRONIC HEALTH PROBLEMS FOLLOW TOXIC SPILL

In 1986, a small town in Alaska was exposed to a major railroad car spill of formaldehyde, trimethylamine, and urea. The Alaska Department of Health and Human Services compared immune factors and health effects in the exposed community to those factors in a similar, nonexposed community. Three years after the accident, people in the toxic-exposed community had statistically significant increased in lymphocyte CD 26 cells, autoantibodies, and antibodies to formaldehyde. The exposed community also experienced a statistically significant increase in many chronic health problems including nasal congestions, sore throat, chronic fatigue, diarrhea, and shortness of breath. Note: Other research had noted elevated levels of CD 26 cells and formaldehyde antibodies in chemically sensitive people.

- Roberta Madison, et al., Environmental Health Perspectives, August, 1991

ADVERSE HEALTH EFFECTS FROM "LOW-LEVEL" VOLATILE ORGANICS

Sixty-six healthy young men were exposed to a mixture of volatile organic chemicals at air concentrations similar to those found in newly finished and poorly ventilated buildings. None of the men had any history of smoking, heavy toxic exposure, asthma, or chemical sensitivity. The subjects experienced more fatigue, mental confusion, and headaches in the air containing volatile organics than in the cleaner air. This "low-level" volatile organic exposure also greatly increased nasal neutrophil levels indicating significant nasal inflammation.

- David Otto, et al., Archives of Environmental Health, January/February, 1992

PASSIVE SMOKING AND CHILDHOOD ASTHMA

More than 3,000 Italian grade school pupils were studied for the effects of parental smoking on their respiratory health. Children in homes where both parents smoked had 50 percent more asthma and 150 percent more night coughing than did children in homes where neither parent smoked.

- Francesco Forastiere, et al., International Journal of Epidemiology, February, 1992

YOGURT CURBS YEAST INFECTIONS

Eating yogurt bacteria kills intestinal Candida and may also reduce vaginal Candida infections. Thirteen women with recurrent vaginal candidiasis ate eight ounces of yogurt containing Lactobacillus acidophilus daily for six months and spent another six months without eating any yogurt, as a control. During the yogurt-eating periods, these women had 85 percent fewer vaginal yeast infections and 74 percent fewer vaginal Candida colonizations and felt much better overall.

The intestines may serve as a Candida reservoir which facilitates spread to other parts of the body in women, men and children. Candida in the body has been show to produce ethanol (beverage alcohol), acetaldehyde, and several highly allergenic proteins.

- Eileen Hilton, M.D., et al., Annals of Internal Medicine, March 1, 1992

NUTRITION AND MCS

Almost all vitamins, minerals, proteins and fatty acids play some role in protecting against effect of chemical exposure. In one study of 200 MCS patients, low cellular levels of chromium were found in 89 percent of the patients, low sulphur levels in 33 percent, low silicon levels in 30 percent, and low selenium levels in 15 percent. Other studies have noted that many MCS patients have very low blood levels of magnesium, zinc,and many amino acids. Such deficiency can lead to increased chemical and alcohol sensitivity and to psychological problems. Many MCS patients have very low blood levels of Vitamin B6 and other vitamins.

The most common amino acid deficient in MCS patients is methionine, a sulphur-containing amino acid found in large quantities of eggs. Methionine plays an important role in many metabolic and detoxification reactions. Improved diet, nutritional supplements, "good" bacteria such as acidophilus, and digestive enzymes can often play a major role in improving the health of MCS patients.

- William Rea, M.D., et al., Chemical Sensitivity, Volume 1 of 4, Lewis Publishers, Boca Raton, Florida, 1992

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SAUNAS AND DETOXIFICATION

A Russian study noted that regular use of sauna by workers exposed to industrial chemicals greatly increased sweat excretion rates of lead, thuiram, captax, and sulphenamide C.

- I.A. Parpalei, et al., Vrach Delo., May 1991 (Russian with English summaries)

All Recent Research was reprinted with permission from *The Human Ecologist*, P.O. Box 49126, Atlanta, GA 30359-1126 (404) 248-1898

LEGAL ISSUES

ALTERNATIVES TO RISK ASSESSMENTS

Risk assessments are an important part of the environmental assessments insisted on by Environment Canada for large projects like the building of dams. Risk assessment analysis is often used to support the continued use or introduction of chemicals. The following article is adapted and condensed from a talk about phasing out dioxin from paper mills. Mary O'Brien, who is very concerned about the use of risk assessments, gave this talk.

Public interest groups are increasingly rejecting the management of toxic materials on the basis of quantitative risk assessment.

Industry can use risk assessment to greatly delay requirements to change their practices until each toxic chemical in question can be shown to be causing significant damage. Industry can actively delay changes in their practices by throwing money, experts, time and sophisticated-looking formulas and factors into increasingly complex risk assessment models.

Risk assessment is a good deal for government, as well. A bureaucrats can hide behind a risk assessment while permitting business-as-usual and toxic discharges. This helps the bureaucrat remain aloof from the ethics involved in shuttling toxic chemicals into people's and other animals' bodies without their consent, against their will, and in the absence of a determination of necessity.

Risk assessment is not such a good deal for the real and potential victims of exposure to toxic chemicals, however. These victims will find that risk assessment does not offer avenues of relief from the chemicals. Risk assessment is generally used to estimate how much of each toxic chemical the victims can take.

Toxic risk assessment is ethically repugnant.

1. The decision to expose people to toxic chemicals without their consent and, in the case of many informed people, against their will, is an attack on the bodily integrity of these people.

2. The decision to manage toxic chemicals on the basis of some hypothetical "average person" facilitates the victimization of particular subpopulations in our society.

Children, chemically sensitive people, embryos, infants, immune-compromised people--all these people are routinely put at potentially high risk by decisions based on risk assessments designed around average adults.

3. The decision to issue permits for toxic pollution that will cause some people to contact cancer is premeditated murder.

4. The decision to permit discharges of toxic chemicals via quantitative risk assessment is anti-democratic, because understanding and critquing the formulas, assumptions, and models involved are technically beyond the time and financial resources of the average citizen. The numbers look objective; the scientific terms look impressive; but the average person does not know that the assumptions are loaded with values, and that critical gaps in knowledge render the models and formulas almost infinitely vulnerable to political manipulation.

5. The decision to permit discharges of human-made chemicals via risk assessment assumes that chemicals are innocent until proven guilty.

If nothing is known about the neurotoxicity or immunotoxicity of a particular chemical, for instance, that neurotoxicity or immunotoxicity is treated as zero, as nonexistent, in the risk assessment model. There are those of us who believe that living beings, not synthetic chemicals, should be given the benefit of doubt.

The burden of proof should be on the polluter to show that the pollution of air or water or people's food supply will not harm humans and other living beings.

It should not be up to potential victims to come up with a body count before they can halt the stream of a toxin in their water, food chain, and bodies.

6. These decisions to invade people's bodies with toxic chemicals and cause high cancer rates among particular subpopulations are ethically repugnant because the invasions are not being done as a last resort.

... Alternatives to the discharge of organochlorine compounds should be ruled out before the state permits chemical trespass of people with these compounds.

Risk assessment is practically inefficient.

How practical is risk assessment as a tool for protecting public health and the environment. If we want to find less toxic ways of managing and using our resources, which of the following questions is going to get us there faster?

1. The risk assessment question: "How much of each toxic chemical can humans the Earth take without buckling at the knees?" or

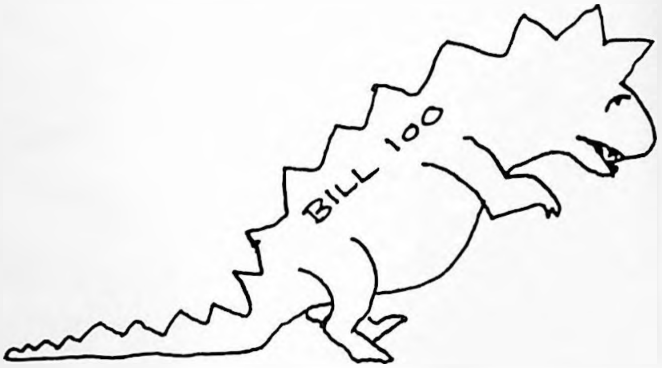
2. The clean production questions: "What is the least tinkering we can do with Earth's life systems? What are the options for discharging the least amount of toxins?"

A commitment to actively search for, analyze, and publicly consider clean production methodology in our country would involve the systematic, ongoing use of environmental audits of all stages of production: resource extraction, manufacturing, transport, product use, and waste disposal. The environmental audits would examine all reasonable, environmentally sound alternative practices.

Questions about the availability of alternative technologies can be answered more scientifically than can questions about how much of a toxic chemical the earth can assimilate without damage. While we cannot know what all the cumulative impacts of dioxin and other toxic compounds are, we can know whether pulp mills are able to produce white paper without using any chlorine compounds.

The full text of this talk appeared in New Solutions: A Journal of Occupational and Environmental Health Policy 3(2), Winter 1993. From P.O. Box 2812, Denver, CO 80201.

Excerpted with permission from NYCAP News, 33 Central Avenue, Albany, NY 12210, 518/426-8246, Summer 1993.



NATIONAL MEDICINE STATUTES

North Carolina recently amended their medical statutes to allow physicians more leeway to practice alternative medical disciplines. The wording is as follows:

6.5.90-14(a) (6) "The Board Shall not revoke the licences or deny a license to a person solely because of that person's practise of a therapy that is experimental, nontraditional or that departs from acceptable and prevailing practices unless, by competent evidence, the Board can establish that the treatment has a safety risk greater than the prevailing treatment or that the treatment is generally not effective."

In contrast, The Ontario government passed Bill 100 in December 1993. One of its clauses has the following effect: Even without a complaint physicians using any procedure considered "unconventional" by an 11 member Quality Assurance Committee may be punished by restriction or suspension for up to six months, ordered to take "remedial" education at their own expense, and must cooperate fully with no legal or procedural safeguard. That is, such physicians will have no opportunity to make certain that the committee includes experts in their area, no legal counsel, no hearing and no ability to appeal the CPSO's decision.

Perhaps this warrants a letter from you to your MPP, The Ontario Minister of Health and Bob Rae.

Betty Auslander

FOOD & NUTRITION

PATIENT EDUCATION: GAME PLAN FOR "MONO-MEALS"

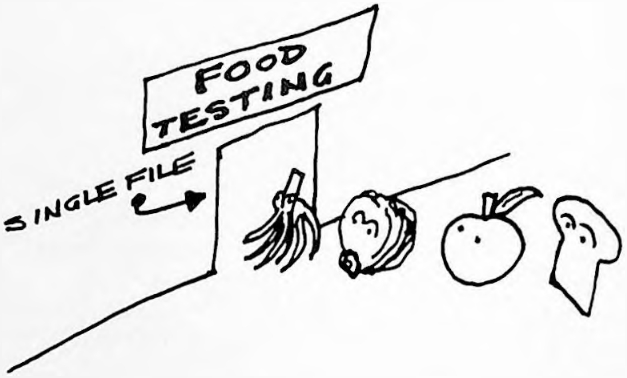
I remember it yet. I was a student nurse in a large hospital in Chicago, back in the fifties. We were passing breakfast trays, and I carried one into a patient, removed the warming cover, and simply stared. I was aghast - surely the kitchen had made a mistake! The plate held two large baked potatoes - and nothing else. Not even the ubiquitous spring of parsley, so often associated with institutional food, graced the plate.

I had just had my first introduction to mono-meals and the unorthodox ways of Theron Randolph, M.D. - a staff physician who seemed to have a reputation for being "different", who ordered strange (or did they say "weird"?) one-food meals for his patients - after "nearly starving them" with a bottled water fast of several days.

I'm sure you know the baked potatoes were not a mistake. The purpose of mono-meals, I know now, is to determine a patient's tolerance for individual foods. If my patient has reacted to potato, her lunch would undoubtedly have been cancelled, to avoid superimposing a new challenge on top of the first. Perhaps her next meal would be served at three or four o'clock, to allow adequate observation time before going to sleep for the night. A highly reactive patient might only be able to test one food per day.

The best thing about this strict diet is that patients learn which food causes which symptom(s) - plus, it's uusually temporary. It's important for patients to realize that although their foods are limited, the quantities are not. Thus the lady to whom I served the potatoes was free to eat her fill of them. And then eat her fill of oranges, for example, at her next meal - perhaps consuming half a dozen.

In the interest of patient nutrition, it probably makes sense to jump around in food selection from fruits to vegetables to grains to meats, fish or poultry, rather than to test several vegetables consecutively, then all the fruits, etc. Here's a sample plan for mono-meals, for ten days:



White potato/orange/oats
Honeydew/carrots/lamb
Peaches/broccoli/turkey
Zucchini/apples/salmon
Strawberries/chicken/spelt
Parsnips/Scrod (cod)/cantaloupe
Cauliflower/duck/nectarine
Butternut squash/whitefish/pear
Kale/beef or buffalo/plums
Asparagus/pheasant/teff

Notice that I've varied the order of foods. I did so because some patients may find it difficult to digest the protein food so close to bedtime. Some patients may digest the protein food best only with an accompanying supplement of hydrochloric acid - so before embarking on a plan in which the patients are expected to satisfy themselves solely on one food, physicians may wish to test for this. Digestive enzymes, while theoretically helpful, may create as many problems as they solve. They tend to be mixtures that contain excipient ingredients. Unless carefully selected, these could inadvertently give the patient a corn, cane sugar, or other food exposure each time it was ingested.

Why should the patient test a food that she already recognizes as an allergen? In a test situation, after fasting and clearing the system of all traces of offender foods, the reaction is apt to be much clearer and more pronounced. For example, I know a patient who avoided white potato for several months. Then she ate it as a test, and about 40 minutes later folded up with such severe abdominal cramps that she later dubbed them her "potato labour pains".

To test or not to best a specific food is clearly a judgement call. On the one hand, the patient's future compliance can be strongly influenced by experiencing clear and exaggerated test reactions. The woman above found it much easier to avoid potatoes after the severe abdominal pains. She was no longer even interested in cheating. On the other hand, if the patient has already had serious reactions to shellfish, peanuts, or anything else, there would be little reason to risk anaphylaxis just to make a point that s/he already understands.

If patients must remain on mono-meals for any length of time, they just eliminate all reactive foods and rearrange their "OK foods" into a new menu plan custom-tailored to their present tolerances. New and unusual foods they may grow or find in a market can be introduced for a test meal at any time. Best and most accurate test results will be obtained when only organic foods are eaten. Otherwise a reaction may, in fact, indicate a response to the pesticides present.

While nuts, seeds, and oils do not appear on my proposed menus, they may be added later to the rotation to help provide needed calories. For these foods, in particular, patients need to search for clean, organic sources. Since nuts and seeds are harvested in the fall - and mould soon becomes a problem as they sit on a shelf somewhere - patients may wish to purchase, package and freeze a year's supply of those that agree with them. For the same reason, they may also wish to buy a variety of whole grains and flours for the year. Organic and low-mould can be a winning combination for many patients too reactive to tolerate foods off the shelf.

[Not surprisingly, many allergics will find they need more than one freezer. They may find that their grains, nuts and seeds alone, fill one freezer. Fruits, vegetables, meat, fish and poultry might fill another one or two.]

While including seasonings in the diet may not be the physician's priority, patients grow weary of eating plain foods. Some will plant an organic herb garden to try to add a bit more interest to their meals. Such patients may test herbs and spices by adding it to an already-tested OK food. Example, Add fresh, minced basil to steamed or stir-fried zucchini or summer squash. By using the herb with an OK food, any resulting reaction can presumably be attributed to the herb.

Of course the goal of any special diet is for the patient to improve. The goal for a patient on mono-meals should be to gradually start combining OK foods, towards a more balanced - and nutritionally adequate - diet.

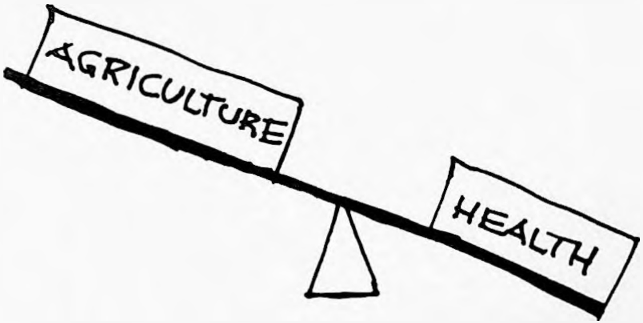
Properly rotated mono-meals are a valuable tool. They provide diagnostic information. They are therapeutic, in that they allow the patient to reprieve from frequent exposure to his or her most allergenic foods. They are preventative because by rotating all food exposures, the patient is less likely to develop further sensitivities. Despite those pluses, we can't afford to fall in love with the use of mono-meals, nor should we think of them as an end in themselves. A mono-meal diet will seldom - almost never - be nutritionally adequate over the long-term.

If the patient complies with such a restrictive diet and fails to improve much, it's time to take a closer look at the patient's environment, their amalgam fillings and other factors capable of prolonging illness. I remember Dr. Randolph emphatically saying, "The best allergy diet in the world won't make a patient well if her gas stove is keeping her ill."

Marjorie Hurt Jones, author of The Allergy Self-Help Cookbook and Super-foods, Allergies Recipes, and co-author of The Yeast Connection Cookbook, writes and publishes the Mastering Food Allergies Newsletter; 2615 N. Fourth St. #616, Coeur d'Alene, ID, 83814-3781, (208) 772-8213.

Written by *Marjorie Hurt Jones*, R.N.

Reprinted from The Environmental Physician, Fall 1993, Vol. 27, No. 3



NATIONAL ACADEMY OF SCIENCES: CHILDREN'S DIET STUDY

At the end of June, the NAS released its long-delayed report Pesticides in the Diets of Infants and Children. The Academy concluded that the federal government does not pay sufficient attention to human health, especially the health of infants and children, in regulating pesticides in the diet. It recommended that the government change its scientific and regulatory procedures to put health considerations first, rather than agricultural production.

The report noted that children and infants consume more calories per body weight and eat large quantities of fewer types of food than adults. It found that the data on what children eat was inadequate. Increased data collection of what children are eating and more pesticide residue testing of these foods are recommended. All pesticide exposures – not just those in foods -- should be considered in assessing risks to children's growth and development.

Because children have rapidly developing bodies, and are not just miniature adults, the report recommends that testing for pesticides be done on juvenile animals. The Academy also urged attention be paid to neurological, reproductive, and immune system damage for pesticides in food.

Pesticides in the Diets of Infants and Children, is $47.95US plus $4US shipping from National Academy Press, 2101 Constitution Ave., NW, Box 285, Washington, DC 20055. 1-800-624-6242.

HIGH RISK FOODS FOR CHILDREN

Pesticides in Children's Food by the non-profit Washington-based Environmental Working Group, was issued at the time of the National Academy of Sciences report. Authors Richard Wiles and Christopher Campbell found that: Over one-third of their entire lifetime dose of some carcinogenic pesticides is consumed by millions of children by age 5.

Despite the presence of more than one or two pesticides in many fruits and vegetables, the EPA assesses the health risks from pesticides as though people were exposed to only one at a time.

By the average child's first birthday, the combined cancer risk from just 8 pesticides on 20 foods exceeds the EPA's lifetime level of "acceptable risk" of one in a million additional cancers.

Millions of children drink water from Midwestern rivers and reservoirs that are contaminated with carcinogenic herbicides. At typical contamination levels, by age 6 these children will have accumulated about 10 times the EPA's lifetime benchmark of "acceptable lifetime cancer risk" of one additional cancer per one million people.

The FDA seriously underreports pesticide residues in the food supply. Most or all of the tests done at 5 of 12 FDA regional labs were not capable of finding 80% of pesticides used in agriculture today, including some of the most toxic and widely used pesticides.

Pesticides in Children's Food is $15US plus $3US postage from the Environmental Working Group, 1718 Connecticut Ave., NW, Suite 600, Washington, DC 200009. (202) 667-6982.

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RECENT RESEARCH

FOOD ALLERGY CROSS-REACTIONS

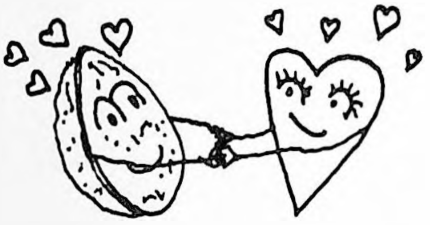
Many people who are allergic to carrots and celery (which are both in the carrot family) are also allergic to cucumbers and watermelon (melon family) as well. Diane Jordan-Wagner, M.D., of Lackland Air Force Base, Texas, has isolated a protein that is common to all four foods and which may be responsible for the food allergies.

- Internal Medicine News, January 15, 1992

POLYSTYRENE HAZARDS...

Attacks on polystyrene have come from all fronts. Of greatest concern to those with MCS is its use in cups and plates.

As reported in the May 24, 1992, issue of The Des Moines Register, "The danger lies in a chemical called styrene. When we eat or drink from polystyrene containers, particularly hot liquid, the chemical can leach out of the container into food or drinks. Recently, the EPA did a study to learn about styrene contamination in Americans. One hundred percent of the people sampled had styrene in their bodies, stored in fat. While levels were small, it shouldn't be taken lightly. Long-term exposure to small quantities of styrene has been linked to headaches, muscular weakness, and liver, kidney, and heart damage. The FDA recognizes styrene as a potential carcinogen."



NUTS AND LOWERED HEART DISEASE RATES

A study of 31,208 California Seventh Day Adventists looked at factors related to heart attack rates, including age, weight, blood pressure, education and many dietary habits. After correcting for other factors, it was found that persons who consumed nuts four or more times per week had 48 percent fewer fatal heart attacks and 51 percent fewer non-fatal heart attacks than did persons who ate nuts less than once a week. This large study suggests that the unsaturated fat and other nutrients in nuts may help protect against heart disease.

- Gary Fraser, et al., Annals of Internal Medicine, July, 1992

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PSYLLIUM ALLERGIES

Psyllium is a gummy plant-derived material used as a fibre source in cereals and bulk laxatives. Many researchers have praised its effectiveness as a safe and gentle laxative. However, many people are allergic to psyllium. A study of 193 nurses in Canada and France found that 3 percent showed skin reactivity to psyllium and 12 percent developed IgE antibodies to psyllium. Some of these nurses with psyllium antibodies developed asthma after being exposed to airborne psyllium while preparing psyllium for patients. Other research has noted serious allergic reactions when sensitized individuals consumed psyllium in powder or cereal form.

- Jean-Luc Malo, et al., American Review of Respiratory Disease, December, 1990.

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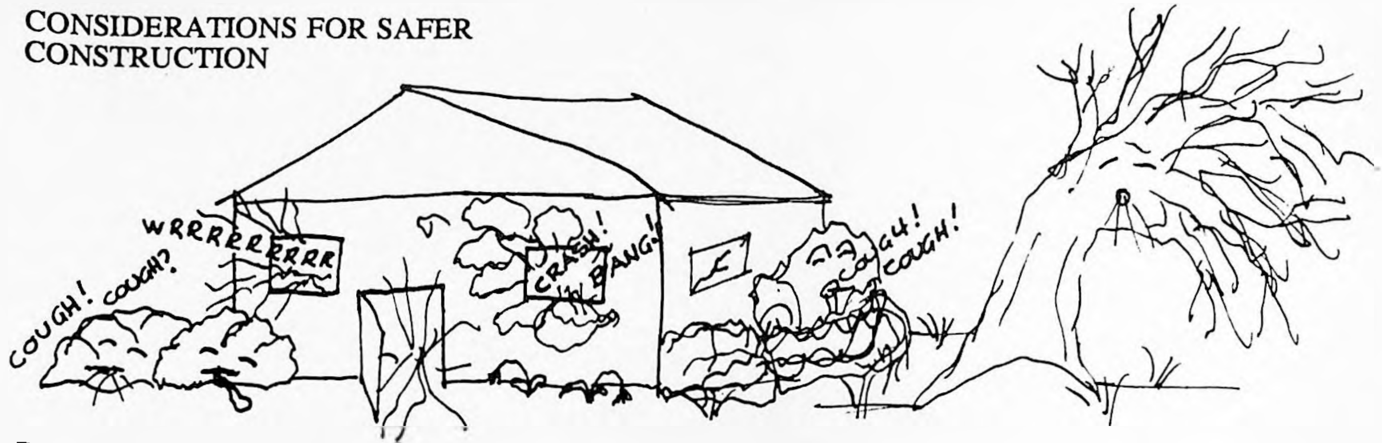
BUILDING & RENOVATIONS

CONSIDERATIONS FOR SAFER CONSTRUCTION


COUGH! COUGH?
WRRRRRRRRRRR
CRASH!
BANG!
COUGH! COUGH!

Renovating or adding on to a home will involve considerations that are of special importance to the homeowner with chemical sensitivities. Even if the project appears to be a simple one, the expertise and project-management skills of an experienced design professional and builder may be desirable. In my experience, they have the potential to save the chemically sensitive homeowner from additional costly problems involving contamination and contractual misunderstanding. If it is decided to forgo experienced allergy design services, another option is to retain the services of an experienced consultant on an hourly basis at the beginning of the project and at key times during the project to assist with the construction process. In any event, any chemically sensitive homeowner planning a new home or renovation project will be well served to get a thorough background in safer construction materials and techniques [EDITOR'S NOTE: The HEAL Service List sheet on "Home and Building Pollution", available through the HEAL office, includes a bibliography and is a good place to start.]

A successful project of this type involves close communication and cooperation between the architect, builder, the chemically sensitive/allergic client, and the client's representative. It is vitally important to self-test materials rigorously and to keep written records of every decision that is made in the course of this project.

Living Arrangements

During construction of a project in a portion of a building, chemical gases from curing paints, sealants, adhesives, drywall mud, and other materials will be present in the air. Dusts from sanding and other construction activities will also become airborne. Tolerable materials may not be tolerable until the emissions from them have dropped below a certain threshold, which is different for each allergic individual. These contaminants can create a health threat to the sensitive individual attempting to coexist in the building during construction. If possible, arrangements should be made for the allergic person to temporarily live and work elsewhere and to enter the project only when the air quality is tolerable. Usually, this time can be determined by an examination of documentation provided by the manufacturer of a certain product, discussions with their technical departments, cautious entry onto the premises of construction, and vigorous implementation and enforcement of a pollution control program (PCP) during construction. (See below.)

Owner's Representative

Select a person who can tolerate the pollutants generated during construction to represent the interests of the homeowner with MCS. At this time there are relatively few builders who understand MCS and allergy construction. Situations will arise where the builder's interests and the homeowner's interests do not agree. Someone, and as mentioned previously it may not be wise for the chemically sensitive individual to fill this role, should be available to visit the site during construction to examine work completed for approval of requests for payment by the builder or work at a standstill because of a problem. This person, who represents the homeowner and understands the intent of MCS and allergy design, will enter a "contaminated" space where chemical gases, dust and other particulate debris are airborne even if a PCP is in effect.

The Builder

Use a builder experienced with MCS/allergy design if possible. A project may be successfully completed when the builder is new to this type of work but it will involve a closer review of the work, review of procedures, constant communication, and education of the builder. It also requires the builder to have an educated understanding of the purpose and proper application of materials selected for their low toxicity. Check the references of any builder (and, for that matter, any design consultant). Do they understand MCS/allergies? Did they question the use of an undiscussed product? Were they cooperative when problems arose? Did they finish the work on time? Did they follow measures taken to control dust and pollution during construction?

Self-Testing

All products used in construction must be self-tested. If they are not and are assumed to be safe because someone else found them acceptable or the manufacturer said "no problem", they may well fall prey to Murphy's Law: "Whatever can go wrong will ." Keep a record of which products have been self tested, and be prepared to use alternatives if necessary. Remember that effects of materials may increase as you live with them or in combination with effects from other materials, so pay particular attention to ventilation in the home.

Permits and Codes

The homeowner should also be sure that all necessary permits are obtained and that codes are followed, because local jurisdictions can require work to be torn down if it is not in compliance. This also provides a degree of quality and safety for the work. If doubtful about how to proceed regarding this, contact your local building inspection department.

Plans and Specifications

Construction documents form part of the contract for construction between a homeowner and a builder, and they include the plans and specifications. Problems will inevitably arise during any construction project for a variety of reasons. In a project for a chemically sensitive client, insufficient drawings and specifications leading to polluting procedures or the installation of contaminated materials and construction components will guarantee that problem will occur.

Construction documents for the "typical" residential renovation or addition project often contain minimal detail and explanatory notes because they rely on the expertise and experience of the contractor to use commonly accepted construction procedures, materials, and equipment necessary for a component of construction. This is not acceptable for MCS and allergy design projects. More drawing and specification detail is required for projects involving MCS/allergies.

A MCS/allergy design specialist will include these considerations in construction documents. Residential builders unfamiliar with this type of design work, however, may feel uncomfortable with such detailed specifications. Their uncertainty about this type of work may result in their quoting higher fees for the work or the offer to do the work for their cost plus a fee. This means that the homeowner agrees to pay for any additional construction costs that arise during the project. Because of financial problems due to previous medical expenses or loss of job or family, many with MCS and allergies will find a cost-plus arrangement financially difficult. If enough information is provided and the builder is experienced, there is no reason why the job cannot be constructed for a lump-sum fee agreed upon before construction when the contract is signed. Do not allow the level of detail in either drawings or specifications to be reduced by a builder's attitude.

Pollution Control Program (PCP)

A pollution control program is a set of written guidelines in the specifications for controlling the spread of dust and other pollutants. Items that might be contained in a pollution control program include the covering of existing or new air duct supply and return diffusers prior to construction, the denial of smoking on the premises, air volume isolation of the remaining structure for the renovation or addition work, a ban on on-site burning of materials, arrangements for or denial of the use of combustion-powered equipment, the cleanup and disposal of construction debris, ventilation and exhaust of chemical gases and construction dusts, and control of generated humidity. Other factors include protection of materials to be installed from contamination at the manufacturer's storage facility or on the job site. Drywall, for example, can act as a sink absorbing chemicals in its vicinity and later releasing them.

Documentation

During the construction of the project, it is important to keep a record of which products have been selected, which of these have been self-tested by the person with allergies, and what alternatives have replaced those materials originally selected. It is also important to document any telephone conversations that have occurred between the builder and the owner's representative as well as any meetings that have occurred between the parties. All parties involved in the project should be given copies of these documents on a regular basis and asked to respond with corrections within a certain period of time. This documentation will clarify verbally discussed issues before they become misunderstanding. If new air-handling or other equipment has been installed, the contractor should be required to explain the operation of the equipment and how to maintain it, in addition to providing all of the manufacturer's documentation and warranties for the equipment.

Review of Construction Progress and Key Inspections

Prior to construction, the points at which special examinations must occur should be identified. These might be just after the air barrier, insulation, and vapour barrier have been installed. Other special construction components may require their own review prior to being covered up by additional construction. Before paying a request for payment by the contractor, the owner's representative should examine the work and approve payment only for work completed. This won't guarantee that there is enough money remaining to finish the work if the contractor defaults, but it makes it more certain that you will get what you pay for.

The process of construction has potential pitfalls for persons with allergies and chemical sensitivities, regardless of the size of the project; but if education and research are conducted and all parties are aware of the intent, it can be successfully managed. The intelligent homeowner will factor into a construction budget the fee of a knowledgable consultant. And remember, careful self-testing of materials and close-knit communication between the building designer, contractor, the MCS/allergy client, and the client's representative are crucial elements in the project's ultimate success.

Written by *Preston Sturgis,* AIA. He is an architect specializing in MCS/allergy design in Atlanta.

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IS YOUR HOME AFFECTING YOUR HEALTH??????

For some people it does. As a rsult, a small but growing number of people need to make changes to their huosing. For these environmentally hypersensitive individuals, providing "clean" living spaces is often a major step towards improved health.

If this sounds like you, we would like to hear from you. Canada Mortgage and Housing Corporation (CMHC) is conducting a national survey on the huosing needs of people who are adversely affected by their living environement.

Please call Sandy Wilson of Ekos Research Associates at (613) 235-7215 (collect) to arrange an appointment for a short, confidential telephone interview.

Your participation in the study would be greatly appreciated. It could also benefit others suffering from environmental hypersensitivity - possibly even yourself!

CALL SANDY, EKOS RESEARCH ASSOCIATES INC.
(613) 235-7215 (collect)

INDOOR AIR

MY NONTOXIC OFFICE

If you have trouble completing paperwork, the problem may be right under your nose. Mine was.

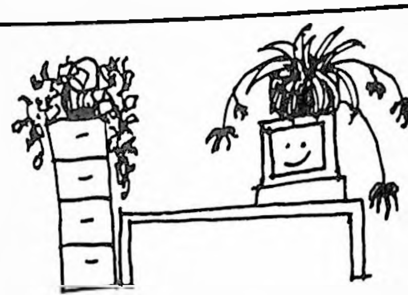
As a former office worker and freelance writer, I had more than my share of exposure to office supplies. At home I usually had my nose in a book or magazine when I wasn't trying to write. Unfortunately, I was never warned that excessive literacy could be hazardous to my health.

As a result of these and other exposures I developed an exquisite sensitivity to paper goods and office supplies. At my lowest point I was unable to read any written materials. A whiff of a carbonless form felt like a punch in the nose. I could not touch my letters or fill out forms. As I got better I was able to pinpoint the papers and office supplies that were least toxic for me. As a result, I am now reconnected with the written word.

Paper goods aren't the only component of the modern office that cause problems for the chemically sensitive, unfortunately. Computers can also be a problem.

Numerous studies have linked very low frequency (VLF) and extremely low frequency (ELF) radiation - both of which are produced by computer monitors - to significant health problems. More radiation issues from the back and sides of a computer than from the front. Thus, back-to-back setups could be particularly hazardous. If you work in an office with others, you should be aware not only of your own computer but also of radiation from your coworkers' computers. Also bear in mind that radiation passes through walls. Find out what electronic equipment might be in use in offices adjoining yours.

Some computer manufacturers have reduced ELF and VLF radiation in new models. These claims, however, may be misleading. Some manufacturers state that their computers meet the Swedish standard for radiation emissions, which is the strictest in the world. Make sure that they are referring to the current Swedish standard, MPR II, however, rather than the previous,



more permissive, standard which is superseded. Anti-glare, anti-static shields block electrostatic radiation, but have not been shown to be effective at blocking ELF and VLF radiation, despite some public perception to the contrary.

LED crystal displays found in laptop computers have lower levels of VLF or ELF radiation than do cathode-ray-tube monitors, but the amount of radiation they give off may still be undesirable to sensitive persons. Radiation varies by manufacturer but may exceed the latest Swedish standard.

Even if a monitor's radiation emissions fall below the latest Swedish standard, the question remains: Who wants to be radiated? A Needham, Massachusetts, company called Safe Technologies has come up with what they claim is the world's first "zero-radiation" computer monitor. The company uses materials and writing techniques to block ELF and VLF radiation. Their LED crystal display "Safe Monitor" can be used with most computers.

Safe Technologies also manufacturers a regular cathode-ray-tube monitor which is said to give off less radiation than other cathode-ray-tube monitors. Another option: the company can retrofit your own computer monitor to reduce radiation. In addition, the company sells electromagnetic-radiation meters which you could use to measure radiation levels when purchasing a commercial monitor.

Radiation is only one difficulty you face in your "safe" white-collar job. Other office hazards for the chemically sensitive include solvents, ozone, methacrylic acid, and toxics that can emanate from office machines. For some, blowing exhaust away with fans will provide relief. Exhausting office machines to the outside with ductwork is another option.

Still another option to decrease office chemicals is to hook your appliances to an air purifier fitted with collection devices. A special foil hose attachment for collecting exhaust comes with Allermed's "Ultra Safe" model air purifier but is not available with other Allermed filter models. Allermed will custom-make computer housings for the purpose of exhausting fumes. The Safe Reading & Computer Box Company also makes computer boxes. Housing for the Environmentally Hypersensitive, a report to the Canadian government, contains a design for an exhaust system and giant hood that covers a computer, TV, and VCR. You can obtain free copies of this report from the Canadian Housing Information Centre. [See "Resources" at end of article.]

Opening a file drawer can be an interesting experience for a person with chemical sensitivities. Chemicals, mold, and dust swirl out and hit you in the face. I leave my filing to someone else whenever possible. Before I file anything it goes out on my line for an airing on a clothesline. Putting the contents of a little-used file in a cellophane bag may also help.

For persons who can't tolerate reading materials, a reading box may be useful. A reading box is essentially a cube with a glass top, gloves for turning pages, and a system for exhausting fumes given off by reading materials.

I used a reading box to help me deal with college textbooks. My experience wasn't entirely positive. The box I bought needed some modifications. It came with fluorescent lights, which some people with chemical sensitivities can't tolerate. It had a built-in fan and filter. In spite of the seller's assurances that the fan was quiet, I had to replace it with a quieter one, which did just as good a job. Even after these modifications, the box still seems to bother me somewhat. Also, having my reading material behind glass makes it seem distant and hard to read. Perhaps a fan driven by a foot pedal, like an old fashioned sewing machine, would be the solution for me. Some reading boxes, such as those manufactured by the Safe Reading & Computer Box Company, are designed without an interior light source. Portable models are available.

Office supplies contain an ample share of chemicals. Making dead trees into flat sheets of paper is a tortuous process that involves mashing up wood, treating it with chemicals, making it into sludge, treating it with more chemicals, manipulating it into shapes, then putting still more chemicals on it. Manufacturers may bleach paper with chlorine gas or calcium hypochlorite which may leave a residue of dioxin. Wood-pulp paper often contains formaldehyde as a binder. Non-wood pulp, such as cotton or manila-hemp fibre, holds up better without formaldehyde. Dyes may contain phenol, a suspected human carcinogen. Paper makers may coat finished paper with a type of plastic. All this before any ink is applied!

Some manufacturers of commercial printer's ink use formaldehyde as a fixative. Petrochemical hydrocarbons constitute the volatile part of petroleum-based ink. Increasing numbers of publishers are turning to soybean-based inks, a less-toxic alternative. Soybean inks also produce sharper, clearer images than do petroleum-based inks. Many soy-based inks, however, still contain sizeable amounts of petroleum, although as the years have gone by the percentage of soy ink has increased.

Following are some office supplies that commonly cause problems for persons with MCS, along with some suggested solutions:

PROBLEM	SOLUTION
CARBONLESS FORMS	*OLD FASHIONED CARBON PAPER with the thinnest possible nontoxic paper. PRINTING SOMETHING IN TRIPLICATE on your computer.
CORRECTION FLUID	STICK-ON CORRECTION STRIPS, ERASABLE PAPER, along with a more permissive attitude toward mistakes that are crossed out and rewritten
ERASABLE FELT PENS AND REMOVER	A BLACKBOARD or a LARGE TABLET
"PERMANENT"	WATER-BASED FELT

SOLVENT-BASED	PENS, RECOMMEND CRAYOLA NONTOXIC MARKERS
FELT PENS; SOLVENT-BASED	WATER-BASED PENS, such as PILOT PRECISE V5 ROLLING BALL PENS, PENCIL
RUBBER CEMENT	ELMER'S SCHOOL GLUE, DENNISON GLUE STIC, GLUESTICK, ELMER'S WHITE GLUE
HIGHLIGHTER	SANFORD'S MAJOR ACCENT isn't too bad but has some odour
STAMPS, SELF-INKING	X-STAMPER is less self odouriferous than IDEAL 1
FOUNTAIN PENS AND INK	*ROTRING ART PEN, plastic more tolerable than usual to one user * MONT BLANC FOUNTAIN PEN INK
YELLOW LEGAL PADS	RECOMMENDED LESS-TOXIC PAPERS, OTHER TABLETS *LEGAL PADS MADE OF RECYCLED PAPER
WOOD PULP PAPER WITH FORMALDEHYDE	FOX RIVER PAPERS (According to Technical Director Kenneth P. Carlson in correspondence dated February 13, 1991, no Fox River Papers contain formaldehyde. Fox River manufactures paper under their own name and also as Eagle A Paper. Cotton content of at least 25 percent works best. Medium weight goes through laser printers and photocopy machines easily. Fox River also makes offset, cover stock, ledger, and writing paper, which I have not tried. You can purchase Fox River papers at some office or printers supply stores, or order them from Quill Corporation. More paper choices: 100 % formaldehyde-free cotton writting paper is available through the mail from DON GAYLOR. A 7-sheet sample costs $1US.
	RICE PAPER (An option that might work for some people) ONION SKIN (Although I can no longer use it, I once found erasable onion skin more tolerable than some other kinds of paper.)
WOOD PULP ENVELOPES	MANILA ENVELOPES DON GAYLOR sells pure-cotton, formaldehyde-free envelopes through the mail (see "Resouces"). Strathmore Legacy is a brand of pure-cotton envelopes sold in sotres. Letter-size manila envelopes are available.
COLOURED FILE FOLDERS	PLAIN MANILA FOLDERS Universal Paper Goods 133 works well for me. Mead "Management Series" 35014 seemed coated with a merterial I could not tolerate.
HANGING FILE SYSTEMS	Bother many sensitive people. Unable to identify a less toxic paper hanging file. Go back to non-hanging file system or have hanging files made from tolerable canvas using metal strips salvaged from paper hanging files. Try button holes to insert plastic labels.
ROLODEX CARDS	CUT CARDS OUT OF PLAIN MANILA FOLDERS
STENO PADS	*STUART HALL
PHOTOCOPY PAPER	*BENCHMARK HIGH-SPEED XEROGRAPHIC PAPER 99-120 WHITE

*I have not personally used these products. They have been recommended to me by other chemically sensitive people who use them.

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Continued page 25

OUTDOOR AIR

Conitinued from page 25.

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Environmental Protection Agency, Office of Toxic Substances. "Formaldehyde Risk Assessment Update." Washington, D.C., September 28, 1992.
Gorman, Carolyn. American Environmental Health Foundation, Dallas, Texas. Personal Correspondence, June 1991.
Lechter, George S. "Facts on Electromagnetic Radiation." Safe Technologies Corporation, Needham, Massachusetts: 1991.

Resources

Allermed, 31 Steel Road, Wylie, Texas 75098, (214) 442-4898.
Canadian Housing Information Centre, CMHC, 682 Montreal Road, Ottawa K1A 0P7, Canada, (613) 748-2367, FAX (613) 748-6192.
Don Gaylor, 1701 Broadway, Vancouver, Washington 98663.
Quill Corporation, P.O. Box 5900, Lincolnshire, Illinois 60197-5900, (708) 634-4800.
Safe Reading & Computer Box Co., P.O. Box 222, Ophelia, Virginia (517) 697-3989.
Safe Technologies, 33 Williams Street, Needham, Massachusetts 02194, (800) 638-9121, (617) 444-7778.
If you need help paying for office supplies or equipment to pursue employment or schooling, your State Division of Vocational Rehabilitation may be able to assist you. Programs and funding levels will vary from state to state.

Written by *Amy Arkoff*

Amy Arkoff is a freelance writer and president of the Environmental Illness Association of Hawaii. Her work has appeared previously in The New Reactor, Honolulu magazine and other publications.

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AGRICULTURE CANADA FINDINGS

Pesticide Contamination Via the Atmosphere

Significant quantities of agricultural pesticides have been found in the air. Some arrive from outside the area but others are due to incorrect local application. Half the triallate (Avadex BW) and trifluralin (Treflan) applied on the soil surface (but not incorporated) was lost through volatilization after 6 days. Eighty percent of these volatilization losses occurred within the first 3 days after application.

Pesticide Contamination of Surface Waters

Using standard application techniques, runoff concentrations of herbicides (Atrazine, Metolachlor) may exceed national drinking water quality standards for at least 1 month after application. Conservation farming in Ontario, (e.g. no-till acreage) is increasing and environmental concern about changes in herbicide movement requires understanding of pathways/processes of pesticide loss, such as surface transport in runoff. Keeping the runoff water on the farm will help to reduce pesticide losses from agricultural land.

Bacteria/Nitrogen Contamination of Surface Waters

The effect of livestock manure application and management on water quality are being studied under conservation tillage practices. Liquid and solid manure disposal systems can result in bacteria and nitrogen contamination of surface waters. No-till Ontario Well Water Survey found that 31% of the 1,300 wells tested across the province exceeded the maximum acceptable content of coliform bacteria. Twenty per cent contained faecal coliform bacteria (presence of human and animal faeces) which is a threat to health.

Agriculture Canada, Soil and Water Conservation Information Bureau, University of Guelph.

Reprinted from Positive Reaction (September, 1993), Box 1250, Stn. "E", Toronto M4P 3E4

SCHOOLS

CAMPAIGN LAUNCHED TO CUT PESTICIDES IN SCHOOLS

New York Coalition for Alternatives to Pesticides (NYCAP) has launched a campaign with local labor, community, and environmental groups throughout the state to eliminate the use of all harmful pesticides in New York's schools. In their place, NYCAP seeks to implement "least toxic" Integrated Pest Management (IPM).

Similar citizen efforts and even state mandates to implement IPM in schools are also under way, from California to Pennsylvania, and Illinois to Texas.

Tracy Frisch, NYCAP coordinator, said, "There's no reason why we can't use our brains rather than an arsenal of dangerous chemicals to keep our schools pest-free and athletics fields green. Substitutes for cancer-causing and nerve-damaging pesticides are cost competitive and highly effective.

"When a teacher made too ill to work by pesticides described how her kindergarten children would get sick like clockwork the day after spraying, you realize that we are slowly poisoning the future generation."

Standard pesticide applications have caused many teachers and office workers to become disabled, dependent members of society. Children may develop asthma, chemical sensitivity, or learning disabilities, or come down regularly with a mysterious stomach flu. Breathed in, absorbed through the skin, or ingested, pesticides can affect memory, behavior, sleep patterns, and coordination, and many other bodily functions. Evidence of the harm can be delayed weeks or years.

Schools can set an example as safe environments for our children with your help. With NYCAP's assistance, conferences have been organized in Buffalo and Westchester to enable schools to kick their pesticide habits. The NYCAP coordinator recently addressed the Suffolk County PTA and a chapter of upstate school building managers, and welcomes other invitations.

COST SAVINGS WITH IPM

William Forbes, a noted IPM expert, did away with weekly fogging in the large Montgomery County, MD, school system where he is pest management supervisor. His program instead focuses on traps, monitoring, sanitation, and sealing doors and walls to keep insects and rodents out.

Forbes has helped school systems in Dade County, FL, San Diego, CA, and Ann Arbor, MI, switch to IPM. He quotes impressive annual savings, ranging from $5,000 to tens of thousands of dollars, depending on the size of the school system, with an 80-90% reduction in pesticide use. He is currently assisting the MD Department of Agriculture in developing an IPM protocol for all MD public agencies, and will keynote at several New York conferences co-sponsored by NYCAP.

IPM stresses common-sense prevention measures such as cleanliness and better food storage methods as well as a thorough biological knowledge of the pests in question. It not only entails less pesticide use, but also the substitution of far safer pesticide products, such as boric acid, silica aerogel, and insecticidal soap, where they are used at all.

IPM reduces infestation as well as costs. In the fall of 1991, New York State's Office of General Services (OGS) unilaterally stopped pesticide spraying and switched to using boric acid in an IPM program in its 43 state office buildings. Walter Bikowitz, OGS building services administrator, said, "Initially we had some skepticism. Now we're finding that it really is effective. At the Empire State Plaza, in Albany, looking at logs, we used to average about ten complaints a day about insects, and now we average about two." NYCAP has worked closely with OGS and other agencies.

The three-week closure and cleanup of Eastchester High School last fall after exterminators incorrectly applied four pesticides, including chlorpyrifos (Dursban), cost several hundred thousand dollars. A National Institute of Cancer study has linked parental home and lawn pesticide use with almost a seven times greater risk of leukemia.

1993 can be a turning point. Parents, teachers and students are more frequently saying no to pesticides and getting results. You don't have to be a toxicologist to realize that chemicals designed to kill are not good for you or your children to breathe!

FIND OUT YOUR SCHOOL'S PESTICIDE POLICIES AND USAGE.

GET INVOLVED AND ASK QUESTIONS!

- What pesticides are used? Where? By whom? On a regular schedule? How often?
- To control which insects, rodents, or weeds? How were they determined to be present or a problem?
- Are indoor and outside pesticide applications contracted out or done by school employees?
- Is the applicator trained and certified?
- Are preventive, non-chemical methods used? How?
- Does the school system have policies and procedures for pesticide use or pest management, notification and posting for pesticide use, and emergency response?

1993 SCHOOL PESTICIDE INFO PACKET

From NYCAP, contains about 70 pages of articles, fact sheets, cost information. Includes PTA policy statement, NYCAP fact sheets and Hug-A-Bug curriculum. $5(US), members; $7(US), non-members. Valuable for schools, parents, teachers, and building managers. See end of article for address.

STATE ATTORNEY GENERAL URGES SCHOOLS CUT PESTICIDE USE

On March 8, Attorney General (A.G.) Robert Abrams released a report urging schools to reduce their pesticide use and improve notification before and after pesticide application. His agency's report surveyed pesticide use in 261 public schools throughout the state. 87% reported using pesticides, most commonly in kitchens and cafeterias, and on lawns.

Abrams said, "As we learn more about the short- and long-term effects of pesticides, we must take increasing precautions when using these toxic substances around our children. Children may regularly come into contact with pesticides during the school day and are more susceptible to these hazardous chemicals because their bodies are growing and developing."

SUCCESS STORIES TO EMULATE

The Attorney General cited a number of individual schools, school boards and districts for their model pesticide use reduction programs. In each case, these school programs were adopted after NYCAP provided assistance to parents, teachers, and/or administrators.

The Albany Public Schools successfully implemented a no-pesticide spraying, boric acid-based program in one school which is being expanded to the whole district. In 1992, Canojaharie Central School District adopted a "least toxic" pest management policy designed to eliminate all pesticide use, following a visit by the mayor and several council members to NYCAP's office. The Schalmont Central School District in Schenectady County began substituting compost for chemical fertilizers on its athletic fields in 1991, and stopped using synthetic pesticides.

A.G.'S RECOMMENDATION FOR SCHOOLS

- Adopt policies and practices to reduce pesticide use. Only apply the "least toxic" pesticides if necessary.
- Put their pest management policies in writing and make them public. Keep detailed pesticide use information. Develop strategies for pesticide emergencies in their mandatory emergency plans.
- Notify staff, students, and parents. Post warning signs before and after pesticide applications.
- The State Legislature should enact the Pesticide Use Reduction Act (PURA, A.4774A, Brodsky). This bill, passed by the Assembly in 1992, would mandate least toxic, least impact pest management by state and local government and schools, set a 50% reduction goal for pesticide use by the year 2000, and require full reporting of pesticide sales and use.
- Local governments should be allowed to regulate pesticide use, including applications in schools.

For your copy of **Pesticides in Schools: Reducing the Risks**, and other A.G. publications on pesticides, contact the New York State Attorney General's Office of Public Information, 120 Broadway, New York, NY 10271, (212) 416-8060, or any regional A.G. office.

Reprinted with permission from NYCAP News, Early spring 1993, 33 Central Ave., Albany, NY 12210, (518) 426-8246 or 9331.

SCHOOL HEALTH HAZARDS AND ENVIRONMENTAL ILLNESS

Highlights from the American Academy of Environmental Medicine (AAEM) annual meeting in Chicago last October.

ENVIRONMENTAL ILLNESS AND BEHAVIOR.

When pediatric allergist Doris Rapp, MD, of Buffalo, NY, appeared on the Donahue show, the network received a record of more than 40,000 calls. Rapp presented videotapes of her environmentally ill patients in her testing room. When exposed to foods, pollens, molds, or chemicals, the children exhibit hyperactivity, violent behavior, hostility, silliness, depression, extreme fatigue, handwriting changes, and other dramatic changes. Rapp's latest book is **Is This Your Child?** Contact her at Practical Allergy Research Foundation, 2757 Elmwood Avenue, Buffalo, NY 14217 (716) 875-5578.

SCHOOL POLLUTION SOURCES

Norma Miller, EdD, had to leave teaching as a result of classroom pollutants. In her survey, environmental medicine physicians and architects ranked what was most important in preventing sick school buildings in this order: heating, cooling and ventilation; pest controls; cleaning; chemicals; fragrances; lighting; remodelling; floors; and art supplies. An American Lung study of ventilation in Oregon public schools found that 50% of 132 classrooms studied had over the recommended maximum level of carbon dioxide, indicating poor ventilation. Her recommendations include adequate natural lighting; metal roofs rather than tar and gravel roofs, which must be replaced so frequently that they are more expensive in the long run; no carpeting, to avoid dust mites, mold, bacteria, and toxic off-gassing; and the use of art supplies designed for children.

ARTIFICIAL LIGHTNG

Irene Wilkenfeld, an Indiana medical writer and former teacher injured by contaminated classrooms, said that 16 hours of artificial lighting provide less physical and emotional benefit than one hour of natural lighting.

Germany has banned fluorescent lights in schools and hospitals. Research done in the 1950s found that children with learning disabilities tended to have smaller fields of vision; in other words, they see the world through a hole. Full-spectrum light in schools has been shown to reduce students' hyperactivity and improve health, attendance, and academic performance.

THE PHYSICAL PLANT

Bruce Small, of Goodwood, Ontario, Canada, shared practical, cost-effective approaches to building, remodelling, and maintaining environmentally safe schools. Among his suggestions were the use of low odor materials; setting up a procedure for sampling building and cleaning materials and testing them, having a gas-out period as is used in Scandinavia; involving parents; and training staff and students.

NUTRITIONAL FACTORS

Stephen Schoenthaler, PhD, a University of California professor, spoke about juvenile delinquents, intelligence, and nutrition. Some very interesting studies found that better nutrition caused a major gain in IQ in some children, presumably those whose intellectual functioning was depressed by poor nutrition. In a British study of violent juvenile delinquents, 90% improved with nutritional supplements. The New York City schools instituted a dietary change in the late 1970s, which emphasized fruits, vegetables, and whole foods, and eliminated artificial coloring. (The school lunch director left and the school diet returned to normal.)

Schoenthaler recommends screening children with a physical exam and blood vitamin testing to select which children will benefit the most. He compared nutrition with eye glasses with which some children perform much better, while others do not improve.

LOW LEVEL SENSITIZATION

Iris Bell, MD, PhD, a University of Arizona professor and researcher, described how the brain may be affected by low levels of chemicals. She presented evidence about how low doses of chemicals rather than high doses can sometimes cause sensitization. In this phenomenon, called "kindling," neurons in the limbic part of the brain become more responsive when exposed to intermittent low doses of chemicals, such as pesticides, cocaine, or amphetamines. Kindling or time-dependent sensitization in animals has been described extensively. For example, intermittent low level pesticide exposures can eventually lead to seizures, even though higher levels of the pesticide would have originally been required to cause seizures.

Bell also found that 15% of a group of 600 students identified five or more types of substances (such as car exhaust, perfume, carpet, or pesticides) which made them ill. She noted that castrated animals are more easily sensitized than non-castrated ones, and that females tend to be more sensitive, suggesting a hormonal connection.

PSYCHOLOGICAL TESTING

Psychologist Susan Franks, PhD, described the use of psychological testing to distinguish between the chemically sensitive and psychiatric patients. People with MCS often have poor balance and gait, and while oriented in time and place, tend to get lost. The neuropsychological deficits found in people with MCS are impossible to fake.

DEALING WITH OTHERS

Shirley Kaplan, MA, LCSW, spoke on the psychosocial aspects of environmental illness. She described her feelings on finally receiving the correct diagnosis of her condition: elation and relief, then anger and feeling overwhelmed, and finally denial. The family conflicts that followed began to lessen when she realized that they needed to set priorities, proceed slowly, and better communicate their needs and feelings.

Since we are taught as children that it is rude to comment on others' personally, appearance, clothes, and smell, when an environmentally ill person asks someone else to give up their perfume, deodorant or detergent, the request is felt as an intrusion beyond normal civility. However, what is really abnormal is that "our civilized society now produces such an array of harmful substances that people can and do literally become toxic to one another."

Because the environmentally ill are often met with the three D's, defensiveness, denial, and discrediting, she said people will get best results with patience rather than hostility. She counselled people to be prepared to deal with negative responses while remaining goal-oriented and negotiating.

WINNING ACCESSIBLE CLASSROOMS

Assertiveness training can help parents to get needed services for their disabled children, said Charlotte DesJardins. A Chicago advocate for disabled children, she works for a federally funded parents information center, one of many around the country. She detailed the rights of disabled children to adequate and accessible education under the federal law and urged parents to seek information and not give up.

AMERICANS WITH DISABILITIES ACT

Later in the conference, Susan Molloy, MA, who is chemically sensitive and the executive director of the California-based Environmental Health Coalition, outlined possible components of "reasonable accommodation" for employees under the Americans with Disabilities Act (ADA). Extra ventilation, errand runners, less perfume use, no perfume-emitting devices, safe maintenance and renovation materials, and a safe path of travel (corridors, stairs, etc.). Some employees can now work at home.

Reprinted with permission from New York Coalition for Alternatives to Pesticides, Early spring 1993, 33 Central Avenue, Albany NY, 12210, (518) 426-8246 or 9331.

HOW TO GET SERVICES BY BEING ASSERTIVE

How to Get Services by Being ASSERTIVE is a book by Charlotte Des Jardins. It is available only from Family Resource Center on Disabilities, 20 East Jackson Boulevard, Room 900, Chicago, Illinois 60604, 800/952-4199(US) or 312/939-3513. 1993, paperback, 208 pages. $5(US) plus shipping.

If you're trying to obtain educational services for a child with multiple chemical sensitivities (MCS), *How to Get Services by Being ASSERTIVE* is a "must have", even though it does not specifically mention MCS. Because it's written frankly and from the parent perspective, this book fills a need not met by other materials.

I shared this book with a parent of children with MCS, and she rated it excellent and lamented that she hadn't had it a year ago to give her confidence, information, and step-by-step guidance she needed.

The book, often used as a textbook for parent advocacy training, contains sections on how to determine your style, use assertiveness at special education meeting hearings, due process hearings, etc.), deal with bureaucrats and public officials, and much more. Especially helpful are the assertiveness excercises on topics such as "Using their Negatives to Build Your Positives," and "How to Shovel Your Way Out of Those Bureaucratic Snow Jobs."

The book does a good job summarizing special eductation law and available resources without becoming bogged down in these topics; information is provided on how to obtain copies of the laws (US). A few case studies by parents and who eventually won services for handicapped children provides inspiration.

Some key messages from the book:

- Be assertive rather than agressive.
- Keep to the topic of your child's special needs; don't let officals get off on tangents about your child's behavior, schools' lack of money, etc.
- Learn your rights by becoming familiar with laws pertaining to the disabled.
- Be persistent.
- Make requests in writing.
- Keep logs of all contacts with the school system and others.

Reviewed by *Julie M. Accola.* Reprinted with permission from *The Human Ecologist*, Summer 1993, P.O. Box 49126, Atlanta GA, 30359-1126, (404) 248-1898.

"The Environment of Learning"

Text of Oral Presentation to the Ontario Royal Commission on Learning by Elizabeth Stutt on behalf of the Allergy and Environmental Health Association and Parents for Education Without Pollution, Ottawa, November 16, 1993

Good afternoon. We commend **David Cooke**, the Ontario Minister of Education and Training, for providing the public with this opportunity to address concerns about the educational system in Ontario.

My name is **Elizabeth Stutt.** I am here today representing the Allergy and Environmental Health Association and Parents for Education Without Pollution.

The **Allergy and Environmental Health Association** is a national, registered charitable organization, operated by volunteers, with branches in cities across Canada, whose members are mainly people with Environmental Sensitivity. The Association's mandate is to increase awareness, to provide information to its members and the general public on Environmental Sensitivity, and to bring individuals together for mutual support and education.

Parents for Education Without Pollution is a network of parents concerned about the indoor air quality in our schools and its effects on the health, behaviour and learning abilities of our children.

♥

The mandate of the Ontario Ministry of Education and Training is clearly to educate our children. Problems with indoor air quality in our school buildings must be addressed since they affect our children's health and their ability to learn--particularly those children disabled by Environmental Sensitivity.

A recent study[1] published by the Ontario Association of School Business Officials indicated that 88 per cent of Ontario school business administrators believe that the learning environment has a major impact on student achievement. Eleven per cent of Canadian school business administrators indicated that indoor air quality was their biggest concern.

Students with Environmental Sensitivity are being made sick by the poor indoor air in our schools, many of which suffer from the sick school syndrome. Indoor air pollution is a serious environmental health problem since it is estimated that people spend an average of 90 per cent of their time indoors.[2]

Contaminants have been estimated to be two-to-five times higher indoors.[3] New construction and remodelled facilities are particularly problematic since the off-gassing of volatile organic compounds from the building materials currently in use continues at a heightened rate for some years. Indoor air pollution is affecting our health, our behaviour and our learning ability.[4]

One of the benchmarks used to assess air quality in our schools--*ASHRAE*

Standard 62-1989[5]--is based on the premise that 20 per cent of a healthy adult population will react at the levels set by the standard. Although the average adult may not notice an immediate reaction, there is a high probability that if 20 per cent of the population is noticeably affected, the average person in the same atmosphere will have health effects over the long run.

With the proliferation of chemicals in our environment in the last few decades, it is now estimated that 15 per cent of our population has been sensitized to the environment and react to various elements therein. Add to that percentage, the growing number of persons with asthma and we estimate that at least 20 per cent of our population reacts adversely to environmental pollutants.

Children are known to be much more susceptible than adults to indoor air pollution. They have a much higher body burden because they breathe a greater volume of air relative to their body weight.[6] Therefore, they absorb a much greater amount of toxic contaminants into their body; as well, their detoxification system is much less able to eliminate these contaminants. It is unfair to use our children **as canaries in the coal mine.**

There are many sources of contaminants in our indoor air environments. Efforts must be made to reduce our exposure to these toxic substances,[7] some of which are:

- synthetic materials
- scented products
- tobacco smoke
- volatile organic compounds
- cleaning products
- photocopy machines
- laminating machines
- computer terminals and printers
- arts and crafts supplies
- chemistry and biology labs
- bactericides, fungicides, pesticides and termiticides
- heating and cooling systems
- petrochemical (including exhaust) fumes
- humidification systems
- humid and wet environments

One of the major problems encountered in schools is the failure of the ventilation system to exhaust these contaminants, to dilute contaminants and to deliver good quality air to the breathing zone; as well, many air intakes are bringing in contaminated outdoor air.[8]

Environmental Sensitivity

A growing segment of our population experiences a variety of adverse reactions to environmental agents at levels well below those deemed acceptable for the average person.

Offending substances may include:

- harmful substances in our air, water and food, such as those originating from personal and cleaning products, fabrics, furnishings, school or office equipment and supplies, building

materials, and chemicals used or stored in the home, school, workplace, farm or industry;
- natural inhalants such as grass, trees, plants, pollens, dust, mould and foods.

Symptoms can range from mild discomfort to severe disability or chronic health problems. Symptoms may develop suddenly or slowly. Environmental Sensitivity can develop in individuals of any age regardless of whether they have a past history of allergies.

Environmental Sensitivity is a degenerative illness. Prevention, early detection and treatment are therefore of paramount importance in dealing with this illness. Treatment of Environmental Sensitivity focuses on prevention, prudent avoidance of offending agents, appropriate nutrition, counselling and medical intervention.

The Ontario Ministry of Education and Training has a responsibility to ensure that the needs of all students are addressed. If our children cannot breathe or are reacting to the contaminants in their schools, they are being denied access to their right to an appropriate education--the ability to learn to potential. Unfortunately, the lack of accommodation for persons with Environmental Sensitivity in our schools socially isolates them and results in a double disability.

To improve the indoor air quality in our schools, appropriate policies and procedures, including legislation, must be established to address the following areas of concern:

- smoking and scented products
- bactericides, fungicides, herbicides, pesticides and termiticides
- ventilation systems and operable windows
- lighting and proximity to power line corridors
- volatile organic compounds in
  - building materials and furniture
  - maintenance and renovation practices
  - cleaning products
  - carpets
- off-gassing period for new construction and renovation projects
- portables and portapac classrooms

Failure to provide appropriate indoor air quality in our schools will deny access to an appropriate education for many students--not only those already diagnosed with Environmental Sensitivity, but also, many of the "normal" population, especially many of those diagnosed with learning, behavioral and attentional difficulties.

We are also concerned with some of the ways in which energy efficiency is being implemented; with this trend, we are destroying much of what was good about older buildings. Now, when buildings are built or renovated, lower ceilings, fewer windows and manmade materials are the norm and buildings are sealed so that outdoor air cannot enter and indoor air cannot escape without mechanical systems. We are reducing the amount of available air per occupant and increasing the pollutant sources dramatically.

Let us look at the health and learning abilities of our students. Have their health and learning curves improved? We know that they have not. It is time to put our children first and give them the most positive learning environment possible. Failure to do so is limiting our children's potential and thus the future of our country.

The ministries of Community and Social Services, Housing and Labour are presently addressing issues faced by persons with Environmental Sensitivity. We particularly commend this New Democratic government for its proposed Environmental Bill of Rights and the Ministry of Health's planned research and treatment facility for persons with Environmental Sensitivity.[9]

Since to date, most school boards have chosen to ignore this most important issue, the Ontario Ministry of Education and Training has a duty of care to enact enforceable legislation to ensure that the rights of all children under their jurisdiction are protected. We emphasize all because under the current *Education Act,* only the rights of children deemed "exceptional" are addressed.

The Ministry's ***The Common Curriculum***[10] puts a great deal of emphasis on environmental education. In fact, in the parent-friendly edition, the word "environment" or a derivative thereof appears not less than 65 times. While it is important to teach environmental responsibility, what is more important for our children is that school boards practice what they preach: **environmental action now--teach by example!**

It is essential that we curtail the environmental insults in our schools so that our children's rights to good health and an appropriate education are protected.

Communication Link
The provision of seats for the Allergy and Environmental Health Association on the provincial Special Education Advisory Committee, the Ontario Parent Council and other relevant committees will ensure an effective communication link with the Ontario Ministry of Education and Training.

By working together, we can make a difference!

In closing, I would like to read a quotation from Chief Seattle dating back to the year 1854:

> ***"Teach your children what we have taught our children. That the Earth is our Mother. Whatever befalls the Earth, befalls the sons of the Earth. Man did not weave the web of life. He is merely a strand in it. Whatever he does to the web, he does to himself."***

References:

1. Shirley J. Hansen, Ph.D., ***Canadian Note:*** Schoolhouse in the Red: The first national study of school facilities, a study sponsored by Honeywell (Toronto: Ontario Association of School Business Officials, 1993).
2. United States Environmental Protection Agency, ***Environmental Hazards In Your School: A Resource Handbook*** (Publication # 2DT-2001, October 1990) (Washington, D.C. 20460), pp. 12-14.
3. ***ibid.***
4. Bruce M. Small, "Recommendations for Action on Pollution and Education in Toronto: A Report Prepared for the Pollution and Education Review Group of the board of Education for the City of Toronto", a consultation paper, May 1985, pp. 56 and 57.
5. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., ***ASHRAE STANDARD 62-1989: Ventilation for Acceptable Indoor Air Quality*** (1791 Tullie Circle, N.E., Atlanta, GA 30329).
6. United States Environmental Protection Agency, ***op.cit.***
7. Bruce M. Small, ***op.cit.***
8. Letter from the Honourable Ruth Grier, Minister of Health, to Chris Brown, President, Allergy and Environmental Health Association (Ottawa Branch), dated August 31, 1993.
9. Ontario Ministry of Education and Training, ***The Common Curriculum, Grades 1-9: Version for Parents and the General Public, 1993, a Working Document*** (Toronto: Queen's Printer for Ontario, 1993).
10. Ontario Ministry of Education and Training, ***The Common Curriculum, Grades 1-9: Version for Parents and the General Public, 1993, a Working Document*** (Toronto: Queen's Printer for Ontario, 1993).

Note: Elizabeth Stutt is the parent of two children with Environmental Sensitivity; she took their special needs to the higest level of appeal under the ***Education Act***--the Ontario Special Education (English) Tribunal--in January 1993. Unfortunately, the Tribunal put more weight on the "medical evidence" of teachers rather than of physicians and the decision refused a physical designation on the basis of Environmental Sensitivity. However, the decision (dated April 2, 1993, p. 34), represents a partial victory as a precedent was set by the Ministry of Education: *"...[E]nvironmental Sensitivity ... should ... be considered as a matter of course by an IPRC [Identification, Placement and Review Committee], if medical evidence confirms it is a factor in a pupil's case."*

The question that begs to be asked is: *"What medical evidence will the Ministry of Education and school boards accept to allow them to address the special needs of students with Environmental Sensitivity?"*

Elizabeth has also filed Ontario Human Rights Commission complaints against her local school board on this same issue.

Elizabeth prepared this submission, as well as a written background presentation, with the help of the members of the Ottawa Branch's Education Committee. This active committee has also been working on materials which can be used when advocating for the special needs of students with Environmental Sensitivity at school boards; this package will include a brochure, a 5-minute "overhead" presentation and a background presentation; these documents will be referenced in the upcoming March issue of ***Canadian Living.***

If you would like a copy of any of these materials, please send your request to the Education Committee, AEHA Ottawa, P.O. Box 33023, Nepean, Ontario K2C 3Y9 or call Elizabeth Stutt at (613) 825-8388 or Leslirae Rotor at (613) 830-7968.

If you are interested in attending a special meeting at our next national annual general meeting to discuss these areas of concern, please advise Ed Lowans or Elizabeth Stutt.

BOOK REVIEWS

BOOKS, BOOKS, BOOKS...

A recent paper in the Lancet (February 6, 1993) by A. Sanford et al reports on a genetic study of 401 humans. They found that about 60 per cent of the people with a genetic variation on chromosome, 11 suffered from many allergies (as measured by skin prick tests). It is suggested that this genetic variation may increase allergic response by increasing immunoglobulin E (IGE) production.

This information comes from Luke Curtis in Canary News (Ap 1993), 1404 Judson Ave., Evanston, Illinois 60201.

Have you ever wondered why there seems to be so many studies focussing on whether ailments are related to a particular gene? Read on and learn how a recent book reflects on this question.

Hubbard, Ruth and Elijah Wald
Exploding The Gene Myth - How Genetic Information is Produced and Manipulated By Scientists, Physicians, Employers, Insurance Companies, Educators and Law Enforcers.
Beacon Press, 1993.

Scientists are usually the first to complain about the coverage they receive in the popular press. Yet the few detailed studies that have been completed show that reporters are more likely to be cheerleaders than critics of modern science. Increasingly, scientists actively seek favourable press coverage, equating public enthusiasm with enhanced research support.

This is especially evident in the field of molecular biology, where new discoveries are packaged, released and faithfully reported on a weekly basis. In the last five years, genes responsible for an array of debilitating medical conditions such as cystic fibrosis, Huntington's disease and several cancers have been identified, leading to speculative claims about possible treatments and, of course, calls for more research. James D. Watson, who co-discovered the double-helical structure of deoxyribonucleic acid (DNA) - the stuff genes are made of - in 1953, and who recently stepped down as head of the 10-year, $3-billion Human Genome Project, said recently, "We used to think that our fate was in our stars. Now we know in large part that our fate is in our genes."

That view of biological inheritance or genes are determining factors of fate has come to dominate both scientific and public thinking about human existence, where life has been reduced to a few snippets of DNA. But the science behind such thinking is increasingly being challenged, and into that ring the voices of Ruth Hubbard, professor of biology emirate at Harvard University, and Elijah Wald, a musician and freelance writer, can now be added.

Since the turn of the century, scientists have been cataloguing and trying to understand how the 100,000 or so genes in human cells interact with the biochemical environment to create individual human beings, each with their own specific traits such as hair and eye colour, fingerprint patterns, and so on. The emergence of recombinant DNA technology - the ability to move and manipulate genes, often across species' boundaries - in the early 1970s has spawned an industry with current global revenues at $4-billion per year; revenues that are expected to reach $50-billion by the end of the decade. There is tremendous political pressure for government agencies to promote, rather than impede, commercial engineered products. (Canada last year became the seventh country to join the international effort to sequence the human genome with a five-year, $22-million pledge to create a Canadian Human Genome Project.)

During the 1940s, many physicists who became disillusioned with atomic weapons work trained their sights on molecular biology, and helped usher in what is now referred to as the biological revolution. But physicists tend to view the world as a collection of atoms, reducing complex entities to their most basic elements. Such reductionist thinking is clearly evident when scientists talk about a single gene for alcoholism or any other trait. Biology, however, is messy. As Hubbard and Wald correctly point out, genetic conditions involve a largely unpredictable inter-play of many factors and processes, ones which are difficult to isolate and study in a scientific manner.

This is especially noticeable when genes are connected to human behaviour. In the past three years, an inherited or genetic basis for behavioral conditions such as manic depression, homosexuality, alcoholism and schizophrenia have all been announced with great fanfare, only to be subsequently retracted with a whimper.

What this suggests, say Hubbard and Wald, is that while the tools of molecular biology may be relatively new, they are often used to support an old idea; that people are poor or rich, healthy or ill, because of something inside them rather than social inequities. The strength of Exploding the Gene Myth is the analysis of the eugenics movement, from its creation by British scientist Francis Gallon (a cousin of Charles Darwin) in 1883 to modern-day genetic discrimination in the workplace.

While providing a much-needed antidote to the daily hype of biotechnology, Exploding the Gene Myth often offers only superficial analysis grounded in the social activist filters of the authors. For example, Hubbard and Wald claim that since the 1970s, scientists are once again emphasizing the importance of heredity in shaping human character and actions, due in part to a conservative backlash against the gains of the civil rights and women's rights movements. Maybe, but it probably has more to do with the technical advances - dating back to the 1970s - that allow genes to be easily manipulated. As well, sections meant to offer a cursory introduction to genetics read like a textbook and often dismiss what actually has been learned about basic gene structure and function.

Nevertheless, Exploding the Gene Myth serves as a reminder that "molecular biologists are no more qualified than the fabled guru on the mountaintop when it comes to telling us the meaning of life. They can give some answers for some aspects of the question, but their answers are useful only in specific contexts.

Reviewed by *Douglas Powell*, a graduate student at the University of Guelph with a degree in molecular genetics.

Reprinted from the Globe and Mail, July 17, 1993.

Crook, William and M. Hurt Jones. **The Yeast Connection Cookbook.** Tennessee: Professional Books, 1989.

This is an excellent book for those with candida and for those who have food sensitivities. The authors understand the importance of food rotation and eating to regain or keep your good health. Marjorie Hurt Jones has developed the scrumptious recipes herself and many are grain-free.

Duff, Kat. The Alchemy of Illness. Toronto: Random House, 1993.

This is a literary book of essays exploring what it feels like to be sick; what is to be savoured in the experience; and how various authors and native myths talk about the wisdom and knowledge that comes with it. The author has suffered with chronic fatigue syndrome for several years.

Galland, Leo. Supperimmunity for Kids. New York: Copestone Press, Inc., 1988.

This wonderful book describes nutritional needs of children from before birth to adolescence with a chapter on each age group. The author has written a practical, comprehensive guide for parents who want to raise healthy children. He stresses that "ideas that may work well for adults are not necessarily appropriate for children. Infants, for example fare very poorly on low fat diets. Toddlers are usually intolerant of high-fibre diets. And pre-adolescents should generally not be given large doses of vitamins even though studies in adults show beneficial side effects."

The above three books were reviewed by *Betty Auslander*.

Rapp, Doris. **Is This Your Child.** New York: Quill William Morrow, 1991.

This wonderful book contains information to help people understand environmental medicine better. This book explains the cause and treatment of a sensitivity in children and adults as well.

Reviewed by *Mary McLean,* Kitchener

TIP SEEKERS

QUESTIONS...

... Answers or tips that you may have on "safer" products or lifestyles are welcome. Please address them to: The Tip Seekers, 85 Walmsley Blvd., Toronto, Ontario, M4V 1X7

QUESTIONS & ANSWERS

Q. How do I stop mould from forming on plant pots?

A1. Spreading charcoal over the soil in the pots helps control the mould problem. Coconut shell charcoal is considered the least likely charcoal to cause problems to those with allergies. This charcoal can be purchased from stores that sell water distillers or air cleaning devices.

Helen Turner, Allergy Alert (September, 1993), Box 1904, Saskatoon, Saskatchewan S7K 3S5.

A2. First of all clean off surface of the earth 1/4" or 1/2". Then sprinkle the finest charcoal you can find over the surface of the soil. You can probably find the charcoal at a garden centre. When the edge of the charcoal turns white in about 6 months, replace it. Another tip is to only have plants that need infrequent watering like aloe vera or cacti.

J.A., Burlington.

Q. About 1 1/2 years ago, just after turning 40, I discovered that eating any beef or beef (milk) product resulted in serious headaches, stomach pain and diarrhea. I tried Lactate milk to no avail. So, I simply didn't eat beef, ice cream, whipped cream, butter, etc., etc. My dad also was allergic to beef - only he had serious asthma reactions.

I have several questions: (1) Are such allergies passed on genetically? (2) Can we tell in advance, if our children have a similar genetic pattern? (My son gets a bloated stomach similar to my reactions when I was younger.) (3) Why beef? I can eat any other meat including pork, deer, poultry... with no problems.

A. Lactate is made for people who are lactose intolerant, that is they lack the enzyme to digest milk sugar. (Lactate cannot help you with a beef allergy). Lactose intolerance always presents itself with digestive symptoms such as bloating, gas and diarrhea.

You note that lactate did not help you but avoidance did. The best way of telling if you are really sensitive to something is by eliminating it from your diet completely and then after a week or so challenging your body with it.

(1) The tendency to be allergic is definitely inherited. If one parent is allergic, the child has about a 50% chance of being allergic. If both parents are allergic, this goes up to about 80%. The specific allergy and symptoms are not inherited. That is to say if your father had asthma, it does not mean you will have asthma but do have a chance to be allergic. It also means that because he was sensitive to beef, it does not mean that you will be sensitive to beef.
(2) We cannot tell in advance that our children will have similar problems, but as mentioned above there is the chance they will have some type of allergy. If your son bloats with milk products (not beef), perhaps he should be checked for lactose intolerance.
(3) You asked "Why beef?". No one really knows why we develop antibodies to certain things and not to others. The protein is what causes the problems and beef protein is different from other animal proteins.
Excerpted from Allergy Alert (September, 1993), Box 1904, Saskatoon, Saskatchewan S7K 3S5.

FABRIC AVAILABLE

The Fabricland chain of fabric stores is now selling a line of environmentally-friendly 100% cotton fabrics--no bleach, dye, or fabric treatments. The available fabrics at our local store (Brockville) include swiss fleece, heavyweight twills, various weights of sheeting, poplin, jersey, sweatshirt fleece, lightweight canvas, heavyweight canvas, and cotton/lycra ribknit (95%/5%). The fabrics were all 150 cm in width (except the cotton/lycra which was 120 cm wide) and prices ranged from $4.98 to $12.98

per metre. I have bought pieces of 2 different sheeting weights that were just fine for my tolerance once they were washed.

Lynn Morrison in Positive Reaction (September, 1993), Box 1250, Stn. "K", Toronto M4P 3E4

ABOUT THOSE COTTON SHEETS

A member phoned in to say that LL Bean sheets do have formaldehyde on them. He had a reaction to new sheets and phoned LL Bean to check this out. He reports no problems with Cannon natural cotton sheets and towels.

THE UNCOMFORTABLE BRA SYNDROME

Many ladies are having a difficult time finding comfortable bras. I had this problem several years ago when I found I could no longer wear synthetic clothing. It seemed almost impossible to find a 100% cotton bra. I finally ordered one from the States, but it didn't fit. Then I tried making one - the fit was even worse. I noticed that nursing bras and usually made from 100% cotton and made for comfort. I bought a nursing bra. It fit beautifully and was comfortable to wear. I made a pattern from it and have been making my bras from cotton interlock for almost pennies. Nursing bras are made to adjust to size changes and if you take the cup opening fasteners off and sew the opening shut, they look exactly like any other bra. I hope this idea helps those of you who have been wearing uncomfortable bras."

Helen Turner, Allergy Alert (September, 1993), Box 1904, Saskatoon, Saskatchewan S7K 3S5.

UNSOLVED QUESTIONS

1. Does anyone know where or how I could get a glass box made? Or perhaps plans for one? P.B., Guelph.
2. Has anyone identified less offensive lead pencils or ink pens? P.B., Guelph.
3. Where are the least polluted areas of Canada to live in? Has anyone with environmental hypersensitivity moved to a place where the outdoor air is excellent? P.B., Guelph.

ANNOUNCEMENTS

REFERRAL SERVICE

Bruce and Barbara Small have founded a company located in Toronto and Ottawa called GREEN-ECLIPSE. GREEN-ECLIPSE offers a free referral service to help people choose healthy home products and services. The company offers alternative recommendations for each of the following catagories:

- builders/renovators/architects
- inspection services
- consulting services
- home cleaners
- duct cleaners
- lawn care
- and more...

Tronto	416-966-7416
Ottawa	613-788-3100

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NON-TOX CO-OP HOUSING

OPTIONS FOR HOMES NON-PROFIT CORPORATION is an organization that has been incorporated for the purpose of working with building co-operatives. These building co-operatives produce condominium homes for their members at cost.

OPTIONS is specifically interested in hearing from households who are seeking homes designed for individuals with environmental sensitivities.

CONTACT:
Mike or Roz in Toronto at 416-867-1501

PROFESSIONAL LISTINGS

PROFESSIONAL LISTINGS

We are developing lists of health professionals who work with the environmentally sensitive. If you are interested in having your name put on this list, send a letter describing the kind of services you provide to Betty Auslander, 85 Walmsley Blvd., Toronto, Ontario, M4V 1X7.

We are providing this list as a service to our members, however each member should decide very carefully who s/he wants to work with. Inclusion in these listings does not imply endorsement by the AEHA.

MEDICAL DOCTORS IN THE CANADIAN SOCIETY FOR ENVIRONMENTAL MEDICINE

Doctors, who are members of the Canadian Society for Environmental Medicine, mainly work with patients that have environmental sensitivity disorders like multiple chemical sensitivity, asthma, hay fever, dermatatis, chronic fatigue syndrome, candida and lupus. Most of these doctors have taken extra training in this area through the American Academy of Environmental Medicine.

J. Aubry, M.D., Sturgeon Falls, 705-753-2300
P. Bright, M.D., Mississauga, 416-564-0122
L. Gilka, M.D., Ottawa, 613-820-6118
R. Greenberg, M.D., Vancouver, 603-224-0196
A. Haque, M.D., Regina, 306-757-6688
J. Krop, M.D., Mississauga, 416-564-0122
J. Maclennan, M.D., Dundas, 416-628-8241
~~R. Mickelson, M.D., Glouchester, 613-830-5764~~
~~J. Molot, M.D., Ottawa, 613-235-6734~~
T. Polevoy, M.D., Waterloo, 519-725-2263
W. Tetz, M.D., Lacombe, 403-782-3513
M. Zazula, M.D. Mississauga, 416-276-7754

OTHER HEALTH PROFESSIONALS

H. Adirim, DDS, ND, Toronto 416-922-6866
F. Anello, M.D., Cambridge, 519-653-3731
M. Basie, DDS, Vancouver 604-736-7455
N. Beserminji, MD, DN, Toronto 416-265-3309
R. Chan, MD, Toronto 416-223-8666
L. Christian, ND, Willowdale/Oakville 416-226-4478
D. Colson, DDS, Toronto 416-482-2133
J.P. Grod, DC, Etobicoke 416-695-3613
B.D. Ihara, ND, Victoria 604-478-1333
K. Kerr, MD, Toronto 416-927-9502
I. Korman, MD, Willowdale 416-222-3175
M.V. Miller, DDS, ND, Toronto 416-293-4119
A. Powell, MD, Toronto, 416-469-4250
Z. Rona, MD, Toronto 416-534-8880
G. Roth, DC, ND Toronto 416-234-1888
J. Seale, MD, Ottawa 613-830-1298
K. Wolch, DMD, Toronto 416-281-4746
A.A. Wood, DC, ND, Newmarket 905-853-7151

DC - Chiropractor
ND - Naturopath
DDS - Dentist

ECOLOGICAL (ORGANIC) GARDENING INFORMATION: 1-800-268-2000.

JOB ACCOMODATION NETWORK

Information on how to go about getting your employer or landlord to accomodate your special needs. Call 1-800-526-6262.

BUILDERS & RENOVATORS

Arkwright Design Consultants Ltd., Toronto, 416-463-8373
Green City Design, Toronto, 416-691-2477
Greg Allen & Associates, Toronto, 416-962-6193
Lowans & Stephen, Toronto, 519-940-0964
Rulestone Renovations, Toronto, 416-694-6016

CONSULTANTS

B. Auslander, Household Environmental Audits. 416-487-2061.
M. Burstyn, Patient information about chronic illness. 416-832-0789.
B. Small, expertise in building products that contain minimal levels of chemical irritants. 416-649-1356.

CALENDAR OF EVENTS

May 28
10:00 AM
Toronto AEHA support group meeting. Meeting to be held at 85 Walmsley Blvd., Toronto. Call Betty at 487-2061 for further information.

June 19-22
1st International Symposium on Ecosystem Health and Medicine: New Goals for Environmental Management.
Loaction: Ottawa Congress Centre
Phone: (519) 824-4120 ext.3064

July 10-13
Canadian Institute of Public Health Inspectors Conference.
Theme: "Home...The Ecosystem"
Location: Halifax
Phone: Jim Bradley (613) 224-7568
Toronto (416) 825-6211

Nov. 27-Dec.1
An International Workshop on Indoor Air - An Intergrated Approach will be held in Gold Coast, Australia.
Write: P.O. Box 1280, Milton Qld 4064, Australia.
Fax: (617) 369-1512

MEMBERSHIP APPLICATION

Membership including a subscription to the Quarterly is $25.00 per year.

Name: ____________________

Address: ____________________

____

Postal code: ____________________

Phone: Home: ____________________

Work: ____________________

Fax: ____________________

Date: __________ New: ___ Renewal:___

Which branch, if any, you would like to belong to: ____________________

Annual membership	$25.00
Donation	______
Total	______

Make cheque or money order payable to: Allergy and Environmental Health Association, P.O. Box 40604 Burlington, Ontario, L7P 4W1.

Comments ____________________

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AEHA BRANCHES

NATIONAL

AEHA CANADA

P.O. Box 40604
Burlington, Ontario, Canada
L7P 4W1
1-800-695-9271

BRANCHES

BRITISH COLUMBIA

c/o Jean Stevens
P.O. Box 1231
Logan Lake, B.C.
V0K 1W0

HAMILTON-BURLINGTON

Linda DeMarchi
1510 Oakhille Drive
Oakville, Ontario
L6J 1Y5
PH: 905-336-2562

KITCHENER

Pres: Alice Croft
85 Longwood Drive
Waterloo, Ontario
N2L 4B6
PH: 519-884-1008

LONDON

Linda Whitlock
RR#3, Melbourne, Ontario
N0L 1T0
PH: 519-289-2440

NEW BRUNSWICK

Pres: Margaret Kelly
P.O. Box 4073
Dieppe, N.B.
E1A 6E7
PH: 506-855-4990

NOVA SCOTIA

Pres: Greg Booth
P.O. Box 31323
Halifax, N.S.
B3K 5Y5

OTTAWA

Elizabeth Stutt
196 Sherway Drive
Nepean, Ontario
K2J 2G6

PH: 613-825-8388
FX: 613-725-1070

PRINCE EDWARD ISLAND

Debbie Lutz
3 Charlotte Drive
Charlottetown, P.E.I.
C1A 2N6

WATERLOO-WELLINGTON

Pres: Colleen Crowe
11 Drew Avenue
Cambridge, Ontario
N1S 3R2

RESOURCE MATERIALS

Joanna Anderson
356 Rankin Drive
Burlington, Ontario
L7N 2B4
PH: 905-637-5146

ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION

ANNUAL GENERAL MEETING

SATURDAY, MAY 14, 1994

at

ST PAUL'S UNITED CHURCH
450 King Street East
Cambridge (Preston), Ontario

TENTATIVE PROGRAM

8:30 - 9:45 a.m.	Meeting with Branch Presidents
9:30 - 10:00 a.m.	Registration
10:00 a.m.	Welcome "Accommodating Special Needs of Students with Environmental Sensitivities" Presentation: Elizabeth Stutt, Ottawa Branch
10:45 a.m.	Refreshments
11:00 a.m.	AEHA Annual General Meeting [AGM]
12:30 - 2:00 p.m.	**LUNCH** (On Your Own)
2:00 p.m.	**KEYNOTE SPEAKER - DR. JEFF PHILIPS** **School/Child Psychologist**
3:50 p.m.	25th Anniversary Celebration Human Ecology Foundation (HEF) **CLOSING ADDRESS:** Dr. John G. Maclennan Founder, HEF/AEHA

* * * * *

DIRECTIONS: From Hwy 401, Exit 278 onto **Hwy 8, SOUTH** to Cambridge (Preston), approx 1/2 Km; at bottom of hill, turn **LEFT** onto Fountain Street; one block, turn **RIGHT** at corner by Knotty Pine Restaurant, cross bridge & lights at Eagle St., next block, church on right at King & Waterloo Streets; about 2 Km from 401.

ACCOMMODATIONS

Kindly note that billeting in private homes will not be provided. For those needing overnight lodging, a listing of suitable accommodations follows; attendees are responsible for making their own reservations etc.

1. **CAMBRIDGE HOLIDAY INN**, 200 Holiday Inn Drive, Hwy 401 (Exit 282) & Hwy 24 North; 519 658-4601 or 1-800 HOLIDAY. Rate: $69.99 per room + tax; must ask for "Great Rate"

2. **JOURNEY'S END MOTEL**, 220 Holiday Inn Drive, Hwy 401 (Exit 282) and Hwy 24 North; 519 658-1100 or 1-800 668-4200. Rate: $56.99 Single; $64.99 Double + tax

3. **WELCOME INNS** (Best Western), 730 Hespeler Road, Hwy 401 (Exit 282) & Hwy 24 South; 519 623-4600 or 1-800 387-4381. Rate: $59.77 Single; $62.77 Double + tax; complimentary Continental Breakfast; NON-SMOKING FLOOR

4. **ASTORIA INN & DESERT INN** - fully booked May 14 weekend

5. **CRYSTAL MOTEL**, 517 Hespeler Road, Exit 282 from Hwy 401 onto Hwy 24 North; 14 room motel; 519 623-1484. Rate: $39.00 Single; $48.00 Double

5. **LANGDON HALL**, R.R. #33, Cambridge, on Blair Rd between Cambridge & Kitchener; 519 740--2100 or 1-800 268-1898. Rate: $175.00 - 290.00, Single or Double!. Breakfast incl.

BED & BREAKFASTS

1. **THE RED DOOR**, 754 Queenston Road, Cambridge; 519 653-9767 Hosts: Janet & Clare Bauman; NO SMOKING; NO PETS; LARGE HOME; SHARE BATHROOM. (Few blocks from St; Paul's) Rate: $35.00 Single; $50.00 Double; full breakfast

2. **KRESS HILL HOUSE**, 127 Jacob St., Cambridge (on Kress Hill, 1 block from Knotty Pine Restaurant); 519 653-8728 Hosts: Nick & Donna; large home; share bathroom; breakfast

BOOK EARLY TO ENSURE A RESERVATION

AEHA is not responsible for either making arrangements or for any arrangements made with any of the listed accommodations.

1994 AGM REGISTRATION

There is no charge to attend the business meeting at 11 am. AGM registration fees apply only to the program of the day.

PAID UP MEMBERS: $8.00 before May 7; $10.00 thereafter

NON or LAPSED MEMBERS: $10.00 before May 7; $12.00 thereafter

TO VOTE IN PERSON OR BY PROXY, NEW/RENEWAL FEES MUST BE FULLY PAID AND REGISTERED WITH THE NATIONAL ASSOCIATION 21 DAYS PRIOR TO THE AGM ie. by APRIL 23, 1994.

ANNUAL MEMBERSHIP FEE - $25.00

Send cheque or money order to:

ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION
P.O. Box 40604, Burlington, Ontario L7P 4W1

ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION
1994 AGM REGISTRATION FORM

Please print: **DATE:**____________________

NAME:____________________________ **EXPIRY DATE:**______________

ADDRESS:____

CITY:_________________**PROV:**_______ **POSTAL CODE:**______________

HOME PHONE:(_____)_____-______ **BUS.PHONE:**(_____)_____-_______

BRANCH:_________________ **POSITION** (if appl.):________________

WILL ATTEND FULL PROGRAM ______ **BUSINESS MEETING ONLY**_______

*** REGISTRATION FEE ENCLOSED: $**__________

* [Do not include annual fees with this application]

Mail this form & fee to:

AEHA, Waterloo-Wellington Branch
11 Drew Avenue, Cambridge, ON N1S 3R2

VOTING AT THE ANNUAL GENERAL MEETING (AGM)

8.06 Voting of Members - Each member of and in good standing with the National Association twenty-one (21) days prior to the Annual General Meeting shall be entitled to one (1) vote by person or by proxy. In the event of vote by proxy, refer to clause 8.07 Proxy Voting Form...

8.07 Proxy Voting Form - Any member of the National Association who is entitled to a vote at a meeting of the general membership may vote by means of a proxy. The member may vote by proxy using the Proxy Voting Form and appointing another person as proxy. The person the member appoints as Proxy need not be a member, but before voting shall produce and deposit with the Corporate Secretary sufficient appointment in writing from his or her constituent or constituents. The Proxy shall be valid for a period not exceeding eleven (11) months from the date contained on the Proxy Voting Form. The form of proxy to be used shall be as follows: [see below]... Lack of conformity with the Proxy Voting Form shall not invalidate the Proxy so long as the information provided is the same. The Board of Directors decision shall be final regarding validity of Proxy votes.

PROXY VOTING FORM

The undersigned,________________________, a member in good standing with the Allergy and Environmental Health Association hereby appoints____________________ as proxy with power of substitution, to attend and to vote for me at _____________________ meeting, to be held on

___________________, 19____, or any adjournment thereof.

Dated this ____ day of _____________, 19____.

_________________________ _________________________

Signature of Member Witness

Mail to: Allergy and Environmental Health Association
PO Box 40604, Burlington, ON L7P 4W1